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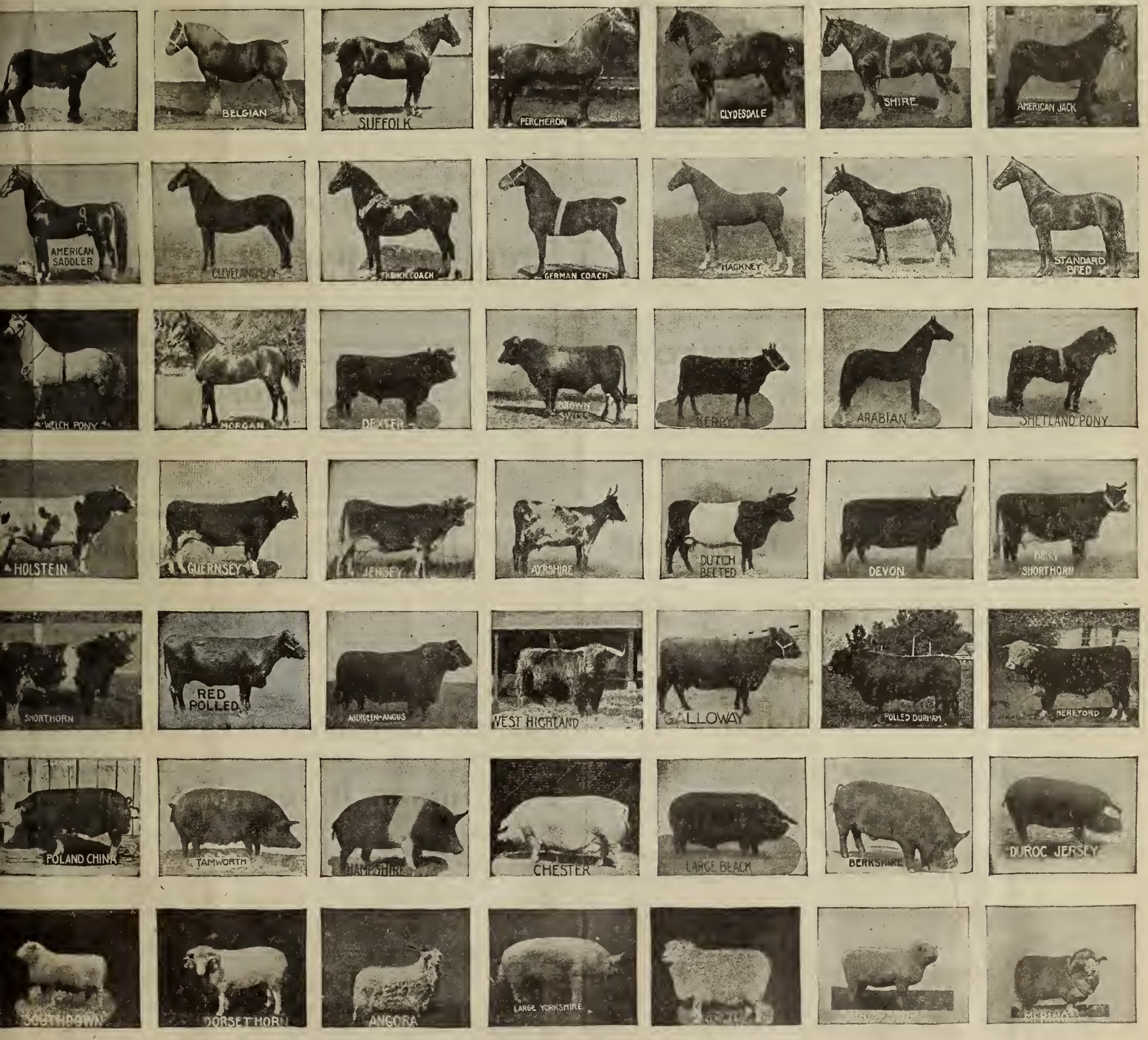
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THE AMERICAN BREEDER

A Farmers' Paper, Devoted to the Breeding and Care of Their Live Stock, and the Welfare of Their Families and Homes.

Published Twice a Month. Subscription Price, $1.00 Per Year, or $2.00 for Three Years, Payable in Advance.

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Graham Publishing Company, Inc., 225 West Twelfth St., Kansas City, Missouri

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GEORGE HIRSCHMAN, Pierson, Iowa

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THE AMERICAN BREEDER.

WITH WHICH IS COMBINED THE STALLION AND JACK NEWS

COPYRIGHT, 1913, BY GRAHAM PUBLISHING COMPANY.

VOLUME 7. KANSAS CITY, JANUARY 20, 1914. NUMBER 1.

European Horse Conditions

Influence of Locality in Formation of Breeds. How Character of Agriculture and Esteem of Those in Business Have Helped to Establish Types. "All Purpose Horses."

The fact that the improving blood n this country has all been importea, naturally causes some to think that ll European equines are of superior xcellence. One can find about as nuch variation in this stock in Eu- ope as can be found in this country, xcept that we have the range bred orses here. The early draft horses ave practically all originated in the lat, fertile sections, while the pony reeds found their beginning in the nproductive sections. So we find hat after all, the sections in which orses are bred does have some in- luence.

The extreme size has been brought bout by a demand for strength and veight in the collar. This early de- nand was created by the farmers in he tilling of fertile land. The size nd quality has been increased hrough the selection of better sires nd an abundance of feed and care. he tendency of draft breeds is to de- erioriate when sufficient care and eed is not given. The smallest ponies ill increase in size through succes- ive generations under good care and lenty of feed. This is the reason hat pony breeders are forced to se- ect the smaller animals as herd head- rs.

There are about 50 different breeds f horses in Europe. Each one of iese breeds have characteristics pe- uliar to the breed. These character- tics have been developed through onsiderable time. This is one ad- antage that Europeans have. Fami- es are usually permanently located, he son taking the father's place and ontinuing the breeding operations ithout any change. A certain small istrict may have had in it in the arly day one or more leaders who ished to build a particular type of tock. Others have joined in this op- ration and it has grown and devel- ped until a considerable territory has ecome interested in that particular ype. By close breeding through gen- rations of time, a set of animals has een established so that when they re crossed with other animals of ixed breeding, their offspring will now the impress of their particular ype. The soil, climate, crops and verything may be the same, in a rticular district, yet two classes of ve stock may be bred having very stinct differences of form, size, etc. wo types of horses may have differ- nt followings.

These breed districts are usually eparate. There may be in each a w scattering animals of some other pe. There are more exceptions in is case where the heavy draft orses and light breeds are being ed. But from the farmer's stand- oint there is usually only one breed a given section. This plan affords better selection of sires; an out- anding individual can be of greater alue under such a plan and more oney can be paid for a sire with a putation.

In the principal horse breeding dis- icts of Europe the reputation of a re is gained largely by his produce. e may be a prize winner, but his reatest value is not considered prov- until his progeny has passed the xperimental stage. The better breed- rs who have studied production, and the unbroken records kept for generations on one farm, have learned that some sires produce with more regularity than others, and that the successful method is to select one which has been tried. The breeders who have successful dams, produced after many generations of painstaking selections, do not wish to chance an untried sire. Where two animals are mated, both of which have been well bred for generations and originating from the same foundation, they are naturally expected to produce good animals, but the sire which has been tried is the one which these breeders are clamoring for.

Among the leading draft horse studs of Europe there are hundreds of sires whose books are full from one to three years in advance. The service fees may range in price from $50 to $200. In a community where the successful sires have stood for several generations, great results must naturally be expected. Unfortunately the owners of those good sires do not understand the capsule system of breeding. There are a few studs in Belgium using this method successfully, and we expect to see this extended to the leading breeds in the course of time.

There are great differences in the types of horses representing the breeds imported to this country. The standard of excellence maintained cannot be stated as perfect in any of them. The object is to produce an animal that will give the best results to those using it. Types have been greatly influenced by the exporting trade and we believe all of these breeds have been improved through this influence.

The Frenchmen know very little about the horses produced by the Englishmen, although they are divided only by a small body of water. In this country the different breeds can be seen in practically every section and a comparison made. The weak points as well as the strong ones can be pointed out. American buyers have been willing to pay a fair price for animals suiting their needs. The importers have shown their recognition of the preferences of American breeders by the amounts they pay for particular kinds of stock.

The extreme size in draft horses originated largely from Belgium. The size of horses has gradually increased, while the farms of Belgium have been divided and subdivided until the average farm consists of about three acres. This does away with the theory that large horses cannot be used for truck farming, or used on small tracts. Practically all of the horses raised in Belgium are large. A small farmer usually works one horse weighing around a ton, instead of a team. They claim that they can turn around quicker, are more easily handled and do as much work as a small team. Their cultivators are usually made for one horse; larger implements would be more difficult to handle. A mare may be worked on one of these small farms and regularly raise a colt, which is a valuable asset.

The all-purpose horse in Europe has a different standing from that of this country. Most old countries are very thickly settled and the small villages are not far apart. An interesting scene was observed by the writer in the Pyrennes Mountains between France and Spain. Those farms average about seven acres each. Cows do the work. The collars are turned upside down and they are worked with harness like horses. Those cows give milk, raise calves, till the soil, and when their usefulness in other ways is ended they are fattened and slaughtered for beef.

This is what those people call an all-purpose animal, and in many parts of Europe the horse fills practically the same place, except that they are not milked. The mares till the soil, raise colts and when their usefulness is done they are fattened and slaughtered for beef. The City of Paris eats 50,000 horses each year. Among some of the nomadic horse raising people near the boundary of Asia, mares' milk becomes a part of the family fare. So it can be readily seen that the all-purpose horse in Europe is much different than those classed as such in this country. This may be one reason why there are not so many barren mares in Europe. When a mare has passed her usefulness as a work animal, or if she does not breed regularly, she is sent to the butchers. On high priced land and in thickly settled sections, every animal that survives must be useful and profitable to maintain. Those which are not profitable are disposed of one way or another.

As strange as it may seem, dogs take the place of many light horses in parts of Europe. The tracts of land are usually small and are utilized by truck farmers. These people market their produce in the cities and smaller town. The marketing is usually done by the women, who are equipped with a cart and from one to five dogs. These dogs work in harness without any lines. They get very proficient and understand the different commands, and it is wonderful how much they can pull. A woman is frequently seen going to town with a half ton of produce with a dog team. She walks behind and guides the cart, also balancing the load. These dogs walk rapidly over the good roads which are usually seen in most of these countries, and good time is made. It is a very common scene to see hundreds of these women who may live as far as five or ten miles away, arrive at the market with their produce at 4 o'clock in the morning.

Even the dogs are carefully bred from a utility standpoint. That kind of breeding is not a fad, because it is from a producing standpoint. Many of those people are very poor and cannot afford to carry on these breeding operations for fun. They do not care to maintain animals that do not net a revenue.

Practically every country in Europe has encouraged the breeding of army horses. There are several breeds of artillery horses. These are close, compact horses, with lots of activity. They are encouraged by the government in the standing of government owned stallions for a very low service fee. The government also purchases many of the young horses for army purposes. These artillery horses would be classed in this country as chunks. Not many of them have found their way here, because there has not been a sufficient demand for that kind. More effort is being expended in the production of army mounts. Different countries have different methods of encouragement. Some maintain a low service fee with the first purchase privilege, while others encourage sport. England is having excellent results in this direction by giving prizes for the hunter horse at different shows.

There is one thing in particular to which we wish to call attention. In nearly every country in Europe where a special class of live stock is bred, the man, who maintains an excellent sire for the upbuilding of the breed is looked upon as a public spirited

Special Subscription Offer

The regular subscription price to the American Breeder is $1.00 per year, but in the belief that we can save ourselves in the future, two-thirds of the work of sending out notices and of revising our subscription lists, we are trying the experiment for a short time of giving the paper three years for $1.00. The offer was first made for the holidays only, but has shown such good results we have decided to keep it open awhile longer. If all who have not already renewed, will do so promptly, and use their best efforts in securing subscriptions, this low rate will mean an important saving in money to them now, and a big saving in work to us later. We are making no reduction whatever from our regular price on one year subscriptions. The rate is for three-year subscriptions only.

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citizen and a valuable asset to any community. They are known far and wide as improvers of live stock. They are given every encouragement. Those who patronize this stock feel that they owe their support to the individual who is doing so much for the breeding industry.

Visit practically any section where live stock has been increased in value and quality, and the breeders will soon tell you of those who have assisted in this great improvement. Their names go down in history as individuals worthy of mention. The successful breeders fully realize that an outstanding tried sire is more than half the herd, and that he must appreciate the efforts of those who maintain good sires. It is very common for a few breeders to associate themselves together and agree to furnish a certain number of females at a stipulated price, in order to encourage an outstanding sire to make a season in their community. A great many breeding centers expect to pay from $3,000 to $10,000 for the use of a good stallion during one short breeding season. The owners of good females in America will never develop their live stock as rapidly as it should be, until they understand the value of better sires. Go into any community in America and undertake to get a number of mare owners together for the purpose of guaranteeing $5,000 for the use of the best sire in the country. How many would be willing to do their part?

SAVING $300 IN A STALLION PURCHASE.

To the American Breeder:—I appreciate what the Graham Scientific Breeding School is doing for the people. When my son returned from the school he brought with him one of your microscopes. This week I purchased an imported Percheron stallion. We took the instruments along and tested the semen; found it good and bought the horse. How much different from the old way. I am satisfied I bought this horse $300 cheaper than if bought in the old way under a guarantee, and I did not have to wait one year to know if he is a foal getter or not, and I will take no risk of disappointing my neighbors. I cannot estimate how much good it has done me in this one transaction.—Wyatt Carr, Story County, Iowa.

PAID $350,000 FOR HORSES AND MULES.

In 1913 the War Department paid out approximately $350,000 for horses and mules. For this sum about 2,000 head were purchased, making an all around average price paid of about $175 per head. Undoubtedly the purchases would have been heavier if suitable animals could have been found at prices within the instruction of purchasing agents. The 2,000 head bought represented only about one-sixteenth of the number of horses and mules now owned by the War Department, and the supply of these on hands is far from adequate. In fact, the purchases made in 1913 included a good many colts which have yet to be developed and trained, something which possibly would not occur if it were possible to get developed animals in sufficient numbers.

GIRLS STUDYING LIVE STOCK.

In a good many states teachers in the common schools are required to give some instruction in agriculture, and as a majority of the country school teachers are ladies, girls and young women are largely represented in many agricultural classes. J. A. Eversmeyer & Son, of Lincoln County, Mo., sent us recently the accompanying photograph showing part of a class in agriculture from the Buchanan High School which visited the stock farm of Messrs. Eversmeyer in connection with the study of types and breeds of live stock.

How Farm Animals are Graded Up

To the American Breeder:—In the process of "grading up" the first progeny from the mating of a pure bred sire and a native or scrub mare is a half blood; the second cross, one-quarter; the third, one-eighth; the fourth, one-sixteenth, and the fifth, one thiry-second. The fifth cross is thus shown to possess very little of the original blood of the native or scrub dam, and it may have all or most of the breed characteristics of the sires used. In some instances less than five top crosses of pure blood will be necessary to stamp upon the progeny the breed characteristics of the sires. Indeed, there are some cases where the colt of a native or scrub mare of good character look almost as perfect in form and quality as his pure bred sire. This fact demonstrates the prepotency of the sire, that power which a pure bred animal from a long line of pure bred sires and dams has of transmitting to his progeny his breed characteristics and individual character, traits and quality, with a great degree of certainty.

It is prepotency of breed that makes it possible for an Aberdeen Angus or Galloway Polled black bull to beget a large proportion of black polled calves from different colored horned scrub or native cows. It is this prepotency that enables the individual bull or stallion to transmit not only his characteristics but his individual excellence of form, prepotency and character. Prepotency of both breed and individual came only from a long line of ancestry in the breeding of the individual animal. The grade, whether he has one cross or five crosses of pure blood in his veins, possesses prepotency only in the degree to which he has been bred pure. That prepotency is slight in the five top cross grades and practically none in the one that has but one top cross. For this reason, no matter how attractive may be the form, character, quality and disposition of a grade stallion, he is likely to lack both breed and individual prepotency. Hence his progeny will, as a rule, favor the scrub side of his ancestry more than the pure bred sire, showing that the prepotency of the scrub is the stronger of the two elements.

Further, it should be borne in mind that true grading up can only be done by means of a pure bred sire. The offspring of the grade sire with a grade female makes no advance in breeding. The resultant progeny is a grade, no higher and no lower than his parents, as regards breeding. Nature sometimes creates what are termed "sports." Such animals often are of phenomenal quality and character in one or another respect, but the superior qualities are not due to prepotency of either breed or individual, hence their possessors cannot be depended upon to reproduce them in his progeny.

A certain scrub or grade stallion may, for instance, develop unusual speed and by reason of it gain prizes on the race track, but if used for breeding purposes his unique powers for speed are not transmitted to his foals, as they have not descended from a long line of ancestors noted for like speed. He lacks breed and individual prepotency and for that reason should not be used for breeding purposes. Success in the breeding of fast horses comes from the mating of stallions and mares that come from families long noted for the possession of speed. Speed is an inherent possession of our trotting breed of horses and has come from selection and line breeding, with that feature in view, until prepotency to produce speed qualifications in the progeny has become an inherent characteristic of the breed as a whole. While certain familes and individuals possess this prepotency to a greater degree than others, in all of our pure breeds of horses, breed prepotency is a fixed character to a greater or less degree, and for that reason pure bred sires should be used. Grade sires, on the contrary, lack both breed and individual prepotency, and should, therefore, not be used for breeding purposes. There are exceptions to this rule as there are to others, but, as a general proposition, the use of grade sires for breeding purposes has been found detrimental and is not practiced in any country that has originated and perfected a breed of pure bred horses. It should be discontinued in every state in the union, and not until this is accomplished can we possibly succeed in producing horses of the highest type and quality.—I. C. Evans, Davis County, Iowa.

STILL ROOM FOR ARGUMENT.

To the American Breeder:—In your issue of November 5th, I notice where a Montana subscriber asks what kind of a horse is best suited to small mares, and have been watching for answers to his inquiry with considerable interest. As I view it, I can hardly see where the Percheron would cross well with mares of the type he mentions.—H. C. Kane, Idaho County, Idaho.

THAT'S IT; "ALWAYS TELLING SOMETHING YOU WANT."

To the American Breeder:—I have been taking your paper for the past three years and can honestly say that I think it is the best horse paper I have ever read, because it is always telling you something you want to know along the line of horses and breeding, and I wouldn't do without if it cost $2.50 a year.—J. A. Dennis, Jasper Count, Iowa.

NEW LIVE STOCK ADVERTISING RATE.

One day recently we received a letter from an Illinois subscriber asking where he could buy Polled Durham cattle, and a letter from a Kansas subscriber telling of the good results he had last year from a 60-word advertisement of Duroc Jersey hogs. Similar evidences of interest in practically every breed and kind of live stock have been received and no one with hogs, cattle, sheep or poultry need lack for interested readers if he places his advertisement in the American Breeder. Other publications secure such advertising by keeping regular solicitors on the road the year round. Our only way to get such business is through the recommendation of those who like the American Breeder for what it is and does. The attention of all such (who may have occasion to mention the cost of our advertising) is called to the new live stock rates announced on the editorial page. No change is made from the old rates excepting on orders amounting to more than $9.50. On all orders for more than this amount, the rate is $4.50 per inch per month. Horse advertisers everywhere will realize that this is the most economical advertising they can use.

Sweet Clover Information.

To the American Breeder: Will someone who has had experience with sweet clover, tell about it. Also give the address of a reliable man who has the different kinds of seed for sale. I am told there are three kinds of sweet clover—white, red and yellow bloom. I am told the white bloom is the rankest grower. Sweet clover is not grown around here. I am told the seed is scarce and priced high; white bloom seed being twice the price of red and yellow bloom seed. There is a general inquiry about sweet clover in this part of the country, as the long drouths here, as well as other places, force us to grow something that will stand the drouth, make the pasture and the hay, also to build our thin land up so we can raise alfalfa successfully. Please tell me if the roots of sweet clover die the second year so we will have to let it go to seed in order to retain the meadow.—M. E. Mayo, Benton County, Ark.

Editor's Note: We want other readers to give their experience. Sweet clover has been given more attention in Kansas than perhaps in any other state. For this reason the following, from the Kansas Agricultural College Industrialist, should furnish reliable information:

As a soil improver, sweet clover is unexcelled; for pasturing purposes, it has considerable value; and as a forage crop, it can be grown where alfalfa or red clover do not thrive. It will soon become an important crop in Southeastern and Western Kansas. Such is the belief of C. C. Cunningham, of the agronomy department, who has made a special study of this crop, and has written a circular on the subject.

Sweet clover thrives best on fertile land well supplied with lime, but will make a satisfactory growth on very poor soils, Mr. Cunningham says. Rough, wooded, or stony lands that are untillable may be seeded by sowing the sweet clover broadcast during the late fall or winter. Such land may make excellent pasture.

To seed sweet clover successfully a thoroughly compacted seed bed is necessary, with just enough loose soil on top to cover the seed. Plowing always should be done several months before seeding. The lack of a solid seed bed probably is the reason sweet clover so often fails when seeded upon cultivated fields. The seed may be planted any time from January to the last of May. Twenty-five pounds of clean, hulled seed should be used for an acre. This large amount is necessary, because only about half of the seed germinates the first season.

The only part of Kansas where it is necessary to inoculate for sweet clover is in the eastern one-fourth of the state, on land where it is not growing naturally. The inoculating may be done by spreading soil from an alfalfa or sweet clover field over the ground where the seeding is to be done. About 300 pounds of this soil should be used to the acre. This inoculated soil should be harrowed in immediately, as exposure to the sunshine and the drying action of the air will kill the bacteria. Best results may be obtained by applying the soil on a cloudy day.

Sweet clover, properly handled, produces a fair quality of hay, which makes a good substitute for the more valuable forms, such as alfalfa or red clover. Where a seed crop is desired, the second cutting of the second year's growth is the best one to leave. The seed crop may be harvested by mowing and raking, but in Western Kansas it is a common practice to use a grain header.

Sweet clover makes excellent pasture for cattle, sheep, hogs and horses. It very rarely causes bloat, and for this reason is preferable to alfalfa for pasturing cattle. It produces early and late grazing, survives the midsummer drouths, and produces fairly well on soils that otherwise would be barren. As a rule, live stock must acquire a taste for sweet clover before they will eat it freely.

For quick results in improving the soil, sweet clover is superior to most other crops. Its ability to thrive well on soils lacking in humus, or otherwise badly run down, adapts it for this purpose. Like alfalfa, it adds nitrogen to the soil in which it grows. The large roots, which penetrate deeply, break up the lower layers of the soil and add much humus when they decay. Sandy, heavy clay, and hardpan soils may be so improved in texture, by growing sweet clover for a few years, as to become quite productive.

Questions and Answers.

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

636—PERCHERON OR FRENCH DRAFT—What is the difference, if any n the breeding of the French draft nd the Percheron horses?—Nebraska ubscriber.

REPLY—Percheron horses are reg-stered in the Percheron Stud Book f France. The French draft horses nay be either Nivernaise or Boulon-aise or Percherons. Nivernaise and oulonnaise are registered under the upervision of the Department of Ag-iculture at Paris. In this country egistered Percherons, Nivernaise or oulonnaise can be registered in the rench Draft Stud Book located at airfield, Iowa. A Percheron can be egistered as a French draft, but a rench draft cannot be registered as Percheron unless it is a pure bred ercheron.

637—REGISTERED JACKS—I have fine black mammoth jack and a lot f his get that are fine. I am trying o encourage the mule business in this ountry. My jack is much larger than ie measurements call for in order to ave him registered, so I can get him egistered at any time.—Colorado Sub-criber.

REPLY—You had better send your pplication in for registering your ack to Wm. E. Morton, 920 Scarritt ldg., Kansas City, Mo., before the rst of next June, as the require-ients change at that time and you ay not be able to register it after hat date. Your state law is liable to e changed at any time, so as to equire jacks to fill the same position hat stallions do at the present time.

638—JACKS IN KANSAS—Must all acks be examined before they are put n the stand for public service next pring?—Kansas Subscriber.

REPLY—There is no requirement or the examination of jacks in Kan-as at the present time, but the law nay be changed in the near future o that the word "stallion" will ap-ly to jacks also. Care should be aken in purchasing jacks to get ound jacks and jacks that are reg-tered or can be.

639—TWO YEAR OLD STALLIONS—I have a full blooded Percheron stal-on colt coming two years old in the pring. He now weigh 1,420 pounds. an I breed any mares with him next pring? How many, and how far part should I breed them? Any in-ormation in regard to a stud colt ould be appreciated. Does he weigh nough now to mature to a ton horse? -South Dakota Subscriber.

REPLY—Ten services, no two ser-ices closer than one week might be ade with this colt. He should not e used as a teaser. The mare should e in good heat and as soon as bred aken away from the premises entire-. Do not let him fondle the mare smell her much. Do not let young allions exercise in a paddock where reeding is done. This attracts their ttention to the breeding and often ad results follow. Masturbation is ie worst thing to contend with in a oung stallion. Your colt does not eigh enough at the present time to ature to a ton stallion unless he is xceedingly thin. He should have een crowded more up to this time. lways remember that the first 30 onths is the time to make a draft allion, beginning at foaling time.

640—COLLECTING SERVICE FEES—A bred four mares to B's jack and e four mares had each a mule colt id I bought the four colts from A id now A is broken up in business id left the country without paying r the service fees for the four colts hat I bought. Now can B file any aim or mortgage on these colts for the fees, or can he in any way force me to pay the service fees?—Kansas Subscriber.

REPLY—Under the Kansas law B. could have filed a claim with the Register of Deeds, giving the names of the jack and the mares, with a good description of each, giving date of service and amount of claim. This should have been done before the colts were born. If no claim was filed before the colts were foaled, he has no claim on them. If breeders will pay attention to the next legislature this defect can be straightened out.

641—CAPSULE BREEDING—In regard to capsule breeding, is it injurious to the stallion to use a bag to get the semen instead of the extractor? It would be difficult for me to get mares known to be in perfect breeding condition every time, as sometimes a customer will come 18 or 20 miles with two or three mares, and perhaps neither one of them in perfect condition. If it is all right to use a bag I could depend on the semen being good.—Mississippi Subscriber.

REPLY—It is not advisable to use a breeders' bag. There are a few jacks that work quite successfully with a breeders' bag for a while, but in many cases both stallions and jacks have been ruined from the use of breeders' bags.

642—DISEASED MARE—I have an imported Shire mare coming six years old. She raised a colt at three years old and since that time I cannot get her in foal. I examined her and she seems awful loose. I bred her to a sure horse. She seems to horse most all the time. Please tell me how I can get this mare in foal.—Iowa Subscriber.

REPLY—Your mare was probably bred to a stallion that had recently served a diseased mare, and it is not likely that she will do you any good from a producing standpoint until she is treated.

643—REGISTERED HORSES—What classes of horses have the registrys? New Mexico Subscriber.

REPLY—If you will look in the files of the American Breeder of August 5, 1913, you will find the registry associations for all recognized breeds.

644—THOROUGHBRED HORSES—Is the Thoroughbred a registered horse? If not, has he ever been?—Nebraska Subscriber.

REPLY—The Thoroughbred is the oldest recognized registered breed of horses in the world.

645—ESSEX HOGS—Would like to get all the information relating to Essex swine. Would also like to know of some Essex breeders.—South Dakota Subscriber.

REPLY—The Essex breed is an early maturing breed and not as large as Duroc Jerseys, Poland Chinas or Berkshires. The Essex pigs are all black; compactly built, and while fairly deep are rather short of body. They are perhaps best adapted to small farms where the hogs have to be kept in rather close quarters. We do not know of any one breeding Essex pigs but will be glad to hear from any one who does know.

646—DOUBTFUL JACK—Would like for you to give me some advice about my jack, as to whether you think he will ever be a sure breeder or not. I bought him last March. He is eight years old and was sold to me as a sure foal getter, but I am not sure whether he is going to show any colts or not. I shipped him about 100 miles and when I unloaded him I had to lead him about 11 miles. He was so ambitious and hard to handle that I got his mouth so sore he could hardly eat, and it seemed as if he got out of shape all over. He was always ready to cover, but sometimes slower than others, and always seemed as if his discharge was all right. He seemed to be off all summer but is all right now. Since about September he has been mending in flesh and is getting fat now.—Illinois Subscriber.

REPLY—Test your jack with a microscope and find out what condition he is in at the present time. The next time you buy a jack take better care of him. These animals cannot travel like a road horse. It would have been very profitable to you if you could have led this jack three or four miles and put him in a barn and taken him the rest of the distance the next day. This experience has probably cost you a good, big bunch of money, and the advice may be of some value to others who expect to road a jack a long distance when he is very rank and liable to overdo himself. These animals are not usually accustomed to a long trip and it is not always advisable to take them so far during one day. Some jacks can travel farther than this, with ease, while with others it would be injurious. You ought to be thankful that this jack is ambitious and willing to travel and serve. If you lead this jack anywhere again take hold

(Continued on page 12.)

"Don't smoke yet!
Smoke after enjoying *clean, pure, healthful*
WRIGLEY'S SPEARMINT
You'll digest your meals and enjoy smoking a great deal more if you
Chew it after every meal
It makes you feel more like smoking because it cools and soothes your mouth and throat.
It also aids digestion—prevents or relieves heartburn. It brightens and preserves the teeth wonderfully—purifies the breath instantly. It's *real* "springy" chicle gum—flavored with *real* juice of *real* mint leaves—if it's
WRIGLEY'S"
BUY IT BY THE BOX
of twenty packages. It costs less—of any dealer—and stays fresh until used.

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THE FLAVOR LASTS
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Six weeks from the day you enter this great practical school you will be able to repair any make of automobile and drive any car on the market. Big demand for our graduates as Repair Men, Salesmen, Demonstrators, Garage Managers and Drivers.
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Auto experts make big money, many make $75.00 to $200.00 a month and more. The road expert for the Studebaker Auto Company and the Master Mechanic of the Winton Motor Car Company are examples of the efficiency of this school. Scores of our graduates hold responsible positions—there is a big opportunity for you.
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Every student who answers this advertisement and enrolls within the next sixty days will be entitled to our course in Traction Engineering without extra charge. You can't afford to miss this—actual experience. Practical instruction—brand new Tractors. Don't miss this free course.
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It tells you all about the money-making opportunities in the Automobile and Tractor field and how to prepare yourself for a responsible position.
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Alfalfa Tiller That renovates, mulches, stimulates, without injury to plant. Catalog Free. Light Draft Harrow Co., Marshalltawn, Ia.

THE AMERICAN BREEDER

With which is combined
THE STALLION AND JACK NEWS.

A Journal of Live Stock Improvement and Modern Breeding Practices.

FRANK B. GRAHAM and T. W. MORSE, Editors.

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If you miss your paper please notify us at once and all lost copies will be replaced.

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YOUNG BLOOD AT BREEDERS' MEETINGS.

Some method for encouraging young men to attend breeding associations should be considered seriously by every one interested in American live stock. Practically every organization of any importance in this country is controlled by men past the age of middle life. A great many retired farmers attend such institutions for pastime. A lot of elderly gentlemen attend through curiousity, but the substantial young men who are full of vigor, and a long life in front of them, are not to be seen in large numbers in these audiences.

There are a lot of these state associations that can be greatly benefited by changing their constitutions and by-laws. Every county (and every township, if possible) should have a representative, and a majority of these representatives should be young men. We are all glad to receive the information from the older ones, but the swapping of knowledge between old men does not have the same effect on the future generation that would result if a lot of good, substantial young men were in the audience. It would be very easy to make changes in most of these state breeders' organizations to include an officer for every township in the state and make this office carry some weight. Have a report from each of these; give them a voice in the meetings. Nothing interests breeders like responsibility. These men could be called vice presidents or some other title could be attached to their names. It should be made the duty of these representatives to solicit others to join them in the attendance at meetings.

Those who take part in a meeting of any kind usually feel that they are getting something out of it. They take more interest in that association than if they were merely spectators. Practically any state breeders' association having a representative in every township, can be made to bear great fruit. There is an army of young men who are very influential. They could be assembled together into a union that would mean strength. These organizations that have a large following have no difficulty in securing the best talent as speakers. The program should be so arranged that every hour of the time should be occupied by one who had the ability to transmit valuable information to the audience. The best speakers can deliver an address to the best advantage, to a large, attentive body of breeders. An organization composed largely of retired farmers or those who have lived a long life of usefulness, and who will be active only a few more years, cannot bear as much fruit as one which is composed of youth.

The remedy in this case is to elect to the important offices young, energetic, intelligent and progressive breeders. If there are not enough offices, create a good, big number so that an army of men may have something to do. This means much. If the American live stock industry is to prosper and develop according to its possibilities, the young men must be interested one way or another.

IMPORTANT NOTICE TO ADVERTISERS.

Several letters have come lately saying "I did not see my ad. in the last paper. I do not want to miss an issue at this time of year." In each case (when we looked it up) the time for which the advertisement was ordered, had expired. It is the rule of this office to run no advertising beyond the time for which it is ordered. That, it seems to us, is the only businesslike way, and is the only method by which we can be sure of always doing the square thing by our patrons. We ask, therefore, that everyone who wants his announcement to appear in our two February issues (among the best of the year) make sure that we have his order to that effect. Instructions should reach us four or five days ahead of the dates of the paper—the 5th and 20th of each month.

RENEW YOUR SUBSCRIPTIONS NOW.

A large number of subscriptions will expire during the next six weeks. It takes about three weeks, in the busy time, to catch up with the work of revising our lists to show the renewals. By renewing several weeks in advance, readers can insure that their subscriptions continue without any break.

The date of the expiration is on every wrapper; 1-14 means that the subscription expires this January; 2-14 means that the subscription expires in February. Several wrappers are kept addressed ahead for each subscriber, so that the change in the date may not appear immediately on the wrapper, but the change will be made on the list and the paper will continue when renewals are received in advance. We hope every one who possibly can, will renew his subscription at once. This will save a vast amount of work for our subscription department. The number of new subscriptions is increasing also at a wonderful rate, and this with the renewals makes the work the heaviest we have ever had. Sending in renewals early will be a real accommodation to us and insure your paper without any break.

The subscription price will be three years for $1.00 until further notice. Those who wish to be sure of this rate should send in their subscriptions and renewals now.

DRAFT HORSE SIZE.

A body of men recently was asked to name several qualifications for a draft stallion. Some named soundness, others conformation, disposition, blood lines, action and many other qualifications, which were all very important in a draft stallion, but not a single one said anything about size.

Only about half of the draft stallions standing for public service in this country can be expected to produce draft geldings, because the stallions are not large enough. A large gelding on the market is not considered a draft horse unless he weighs 1600 pounds or more. There are thousands of people producing chunks when they really believe they are raising draft horses. There is a good market for chunks weighing from 1450 up, but they do not bring the high prices that the heavier horses bring. The really good, big, substantial draft stallions are very scarce. A stallion that weighs a ton in breeding condition is not easily found.

There are numerous other requirements in addition to size, but in order to have a draft stallion we must have size.

NEW AGRICULTURAL SECRETARIES IN TWO STATES.

In Missouri and Kansas last week, new secretaries were elected by the State Boards of Agriculture. In Missouri the change, very likely, was purely one of partisan politics. Secretary T. C. Wilson had held through the Hadley (Republican) administration and one year of the Majors (Democratic) administration. He was succeeded by Jewell Mayes, a well known newspaper man of the state and probably a supporter of the present governor. Both Mr. Mayes and the man he succeeds are well thought of. Assistant Secretary W. L. Nelson, who was chief aid of Secretary Wilson and of Secretary Ellis before him, was re-elected and will doubtless continue his good work during the incumbency of Secretary Mayes. Mr. Nelson is admirably adapted to the work—a native, loyal, gifted, hard working and well informed farm raised Missourian.

In Kansas the circumstances surrounding the change are somewhat different. Politics is not supposed to enter into the holding of this office, but there had been some talk of a law which would give the governor the power to appoint the Kansas secretary. It is almost certain, however, that it was the wish of F. D. Coburn, who has been secretary of the Kansas board for 20 years, to retire from office at this time. No other man in this work has made himself so widely known, and if Mr. Coburn wishes to continue active along similar lines plenty of places that will pay as well, or better, are open to him. Mr. Coburn is succeeded by his assistant, J. C. Mohler. The new secretary has been employed in the office of the secretary practically ever since he got out of high school, having first had a position under his father, who was secretary of the Kansas board of agriculture for a short time before Mr. Coburn's first election in 1894.

BAD CORN DANGEROUS FOR HORSES.

Some sections are reporting much sickness among horses. Many of these complaints describe trouble resembling "blind staggers." These complaints usually come from the dry districts where the corn is not very good.

The remedy in this case is to shell the corn in a vessel of water; skim off all the grain and other material that does not sink to the bottom, and feed it to the chickens or hogs. The sound grain will sink to the bottom and can be fed to horse stock with safety.

A farmer recently fed some bad corn to his horses with the result of several deaths in his herd. He estimated that the corn he had fed of that certain kind cost him about $25 a bushel. Since he has been skimming this corn he has not lost a single animal, nor have any of them been sick. This is not difficult and is a very profitable precaution.

LIVE STOCK INSURANCE; POLLED DURHAM CATTLE.

To the American Breeder:—I asked you some time ago regarding your opinion of a good insurance company for stallions. I aslo have been looking your paper all over for a Polled Durham cattle advertisement, as I should like to exchange or buy a good bull calf. It seems to me that I am not expecting too much from a breeder's paper to learn of a good live stock insurance company, or to get in touch with some good Polled Durham breeders. I would think many of your subscribers are interested in cattle. I think my subscription is good for a few years yet, isn't it? A happy and prosperous new year to you.—Hugo Zachgo, Iroquois County, Ill.

The above is a fair sample of many inquiries which come to this office about live stock insurance. We have accepted at various times the advertising of live stock insurance companies which we thought to be reliable, but apparently some of them, at least, have found fault with our policy concerning live stock insurance.

On several occasions we have taken the stand, editorially, that ten per cent is too high a premium for live stock owners to pay. It is our belief, and we have so stated, that the live stock owner could better afford to carry his own risk than to pay such a premium, and we have tried to show ways in which our subscribers could protect themselves from loss by taking good care of their animals and by being careful about their buildings.

We should like to hear from our readers concerning this feature of the above inquiry. Discussions pro and con will prove helpful to all. We have no objection to a discussion, also, of the advisability of advertising other live stock than horses in the American Breeder. Our specialty is horses, jack stock and mules, and such other matters as are essential to these lines of business, but if it should appear that a great number of our readers would find the American Breeder of more use and interest to them as the results of such an addition, we might try to interest breeders of pure bred hogs and cattle in making use of our advertising columns.

HOG CHOLERA.

A subscriber informs us that he secured virus and serum for the vaccination of hogs. He administered the "simultaneous treatment" and 17 hogs out of the 24 vaccinated died. His neighbor saved nearly all of his hogs with a similar treatment a few weeks previous. His neighbor's hogs were on the adjoining farm. He asked us why his hogs died.

This is an important question. The serum plants in the United States are claimed to be under government supervision, but does it really supervise? Inspectors, as we understand it, investigate plants from a sanitary standpoint, but do not test the serum. This is the important feature. The government should place a government tester in charge of every serum plant in this country. No virus or serum should ever be used that was not tested. Hog cholera has wrought a greater damage than practically any other disease in this country, and should have more government attention. If all the serum was tested and properly used great results would follow. When bad serum is used the serum method is at once placed in bad

The Horse Breeding School

--- Next Term February 2 to 7 ---

Breeders with money invested in the business cannot spend a week's time and their tuition fee to better advantage. Fathers and mothers need not be afraid to send their boys. Ask any graduate.

It's the greatest opportunity offered anywhere to make yourself an expert breeder, to learn to avoid the points of the breeding business that cause so much loss to stallion and jack owners every season. All of the instruction is practical and everything taught is demonstrated whenever possible. All instructors but two are expert post-graduate veterinarians doing educational work recognized by the United States Government.



PHOTOGRAPH TAKEN IN LECTURE ROOM DURING LAST TERM.

SOME OF THE SCHOOL'S WORK, INCLUDING SUBJECTS TAUGHT

Dissecting Mares, Anatomy of the Male and Female Organs—Physiology of the Generative Organs—Cells—Infection—Breeding Questions—Breeding Instruments—Foaling—Scientific Mating—Horse Judging—Mule Judging—Barren Mares—Barren Stallions—Abnormal Conditions—Diseases of the Foal and Fetus—Diseases of the Male and Female—Contagious Abortion—Feeding—Testing Breeding Stock—Determining a Mare's Breeding Condition—Buying Breeding Stock—Hereditary Defects—Horse Breeding—Rectal Examinations for Abnormal or Diseased Conditions; also for telling whether a mare is in foal or not—Getting the Semen—Inserting Capsules, etc.

EQUIPMENT AND EXPENSES.

The school has its regularly equipped building, which is just north of Convention Hall, Kansas City, Mo. In the lecture room of this building are numerous charts, stereopticon apparatus for showing pictures and illustrations during the lectures, all kinds of breeding appliances and other equipment necessary for instruction in all the latest methods in horse breeding. A veterinary hospital is utilized in the dissecting work and the barns of dealers in mules and horses in the lectures on types, judging, etc.

Accommodations for all students will be arranged for by the school authorities without charge. They have reserved rooms and board at moderate rate—from $1 to $1.25 a day—sufficient to provide quarters for all who come.

Remember the date and prepare to be here next term. When you get here take Observation Park street car at Union Depot; get off at 12th street and walk one block east. **Tuition is $25, which entitles all students to a free return privilege for life.** For other information address

The GRAHAM SCIENTIFIC BREEDING SCHOOL

225 West Twelfth St., Kansas City, Mo.

pute. Those who use the simulneous method should thoroughly derstand how to use it with safety. fact, many of our best authorities vise against the use of simultaneous ethod unless the hogs really have e cholera on the farm. When the nultaneous method is used, hog olera germs are introduced, and the ace becomes infected with hog olera. If the serum and the eration is perfect the hogs will rever, but the infection will remain a time, so that other hogs may come infected.

The veterinarian in a district here hog cholera is prevalent should procure a large quantity of serum in e container. It should be tested imediately and not used until satistory results from that particular rum were demonstrated. This will expensive but advisable. The bet method, however, is to have the vernment stamp on each vessel ntaining serum, stating that it has en tested, and giving the date of e test.

NEW METHOD OF CASTRATION.

Certain experiments have disclosed the fact that some animals can be castrated by "injection." Material taken from the testicles of one animal and injected under the skin of another animal of the same species has served the purpose of castration. This is a recent discovery and may be brought into use in various ways, both in humans as well as in other animals.

It is not a painful operation and seems to get good results in a reasonable length of time and without much danger. This will be a great advantage in the castration of ridgling stallions. It may also induce many owners of inferior sires to try the method, which would be a blessing to the American live stock industry.

The best stallion service record book made—space for 200 mares—is advertised and described in this issue. Be sure to look up this description.—Adv.

NEW BLOOD IN STOCK BREEDERS' ASSOCIATION.

George C. Wheeler, until lately the animal husbandry man in the Kansas agricultural college extension work, is the new secretary of the Kansas Improved Stock Breeders' Association. The other newly elected officers are as follows: President, T. H. Terry, Bavaria; vice-president, C. S. Nevius, Chiles; directors, C. H. White, Burlington; O. O. Wolf, Ottawa; E. W. Rankin, Topeka; P. H. Pagett, Beloit. The association held its annual meeting last week.

TO ENCOURAGE PERMANENT IMPROVEMENTS.

As a part of its campaign to improve agricultural methods, the Pennsylvania Railroad is to distribute among the farmers along its lines, 10,000 copies of a book describing the possible uses of concrete on the farm. The distribution of these books will be made through the office of the Railroad Agriculturist.

Be an Auctioneer

Travel over the country and make big money. No other profession can be learned so quickly, that will pay as big wages. Write today for big, free catalogue of Home Study Course, as well as the Actual Practice School, which opens soon.

MISSOURI AUCTION SCHOOL,
Largest in the World.
W. B. Carpenter, President.
14th & Grand Ave., Kansas City, Mo.

POSITION WANTED.
Have handled horses since I was fifteen, specializing the last eight years in their training and education. I am now studying their breeding and care and within a month will begin a course in the Graham Scientific Breeding School. I want permanent work with a horse breeding and raising establishment. Will be glad to give references.
ELLIOTT S. HUMPHREY,
P. O. Box 64, Buckner, Mo.

POSITION WANTED
By a graduate of the Graham Scientific Breeding School. Have handled stallions the past ten years; have handled the capsule system two years. References furnished. **C. E. HODGDEN, Galesburg, Neosho County, Kans.**

Expert Horse Breeding

Years of practical experience has been an advantage to many breeders, while to a few it may have been a detriment. It is not the amount of so-called information that gives the greatest efficiency. There is entirely too much mis-information. A lot of material has been published on this subject which is of great value; perhaps more material has been published which is altogether incorrect.

The subject of breeding has not enjoyed as much thorough investigation as most other subjects; too much of it has been guess work based on the observation of untrained men and on unreliable statistics. The best posted men know too little about this very important subject. The average breeder does not know who to believe. In practically every gathering of breeders, opposite opinions on important subjects are likely to be voiced.

About five years ago the writer was asked to investigate a lot of these subjects (with the assistance of successful breeders and scientific investigators) for the purpose of establishing a short course of training in which breeders could get practical work. Those requesting this knew that the average breeder was not familar with technical terms, and that in order to have the best results, actual work on animals (both dead and alive) must be had. As a result of these requests the Graham Scientific Breeding School was started. It is now in its fifth year and among its students nearly every sections of the United States has been represented, as well as several foreign countries.

Even those who attended the school during its first inception have (as a rule) had good results; those attending later years have been much better. The greatest thing for horse breeders to know is how to examine breeding stock from a scientific standpoint. This is especially true of the new disease which has been recently discovered, caused by the germ known as "Barrenness in Mares." This one disease is costing the horse breeders of this country much more money than is generally supposed. It increased by geometrical progression. One diseased mare will be bred and several others are diseased by being bred immediately after such a service. These new diseased mares will be scattered and bred. This is not guess work. It is known that a clean, healthy, producing mare can be inoculated by inserting some of these germs into the uterus, making her either temporarily or permanently barren.

Practically every breeder can turn to his books and find records showing where several good producing mares have failed to produce from services following a service made on a mare that was barren from disease.

This disease is not so hard to diagnose after the breeders have had an opportunity to see one of these mares dissected, but it is difficult to make it plain any other way. At the last term of school two mares were dissected, one of which had the disease called "Barrenness in Mares," and the other was "Purulent Metritis." The genital tracts of these two mares were dissected and placed side by side so the students could make a careful examination. Practically any school boy would be able to diagnose either of these cases in live animals after these illustrated lectures. It is these comparisons that get results.

This, however, is only one of the features of the breeding school. One mare dissected had two very large diseased ovaries and no matter what treatment was given she never could have produced a foal. Mares are also selected that have abnormal conditions, and each student is expected to make these examinations with the different mares, so that when he gets home he can better understand the difficulties in his work. The very foundation of this work should be to prepare a man for better results.

Several hundred different illustrations, every one of which has its value for horse breeders, are used in the lectures. Practically every lecture is illustrated and made so plain that any one should be able to get full value. It is an advanced course. Those who have studied the American Breeder make the best students. It is a special work for those who wish to be experts. There is a difference in men. Some breeders have been very successful working with even a limited amount of information. These men are naturally more proficient in that particular line and the added expert information they could receive at this school would make them surprisingly more successful.

Some believe that this school teaches only capsule breeding. There are a large number of men using the capsule system that have never attended this school. These men can be benefited by attending this school because they would know better how to select their breeding mares and what to do with those in a diseased condition. The diagnosing of mares is a big thing in horse breeding. The more proficient one is in this particular work, the better results he can expect in all his breeding operations.

Every student is requested to be in Kansas City the night before school begins, so he can get a good rest and be on hand early Monday morning. The school begins a 7:30 o'clock and is continuous until 10:30 at night—six days and nights—with illustrated lectures and demonstrations by the best instructors known to horse breeding investigators.

There were 75 men in attendance at the last term, which was the most complete and successful term so far held. These students stay together like a band of brothers, and assist each other. They all sleep at one hotel, where special rates are procured, and the entire body is kept together all of the time. Their minds are on that one particular subject from the time they reach Kansas City until the school is over. Those who do not expect to make use of their time at this school are requested not to come, and they cannot remain unless they apply themselves and work. At the last term one of the students became disabled from a chronic ailment, and a collection was taken up among the students to employ a nurse to be with him during his illness. His doctor bill was also paid. The brotherly feeling among these students has no equal. Every man believes he is here for business and the assistance given each other has much to do with the remarkable results obtained. It is made clear the first day that it is a very poor place for "smart Alecks." No one is allowed to laugh at any other student, no matter what he does. It is this feeling of confidence that assists the students in getting

PERCHERONS
For Sale

Two iron grey mares, Crouch's importations, 8 years old in spring; safe in foal to imported horse; weigh over a ton; sure breeders. Also their two yearling fillies and their two stallion colts. The mares are champions of the state. The fillies won first and second as colts, and in two classes as yearlings at Fort Worth Stock Show. The horse colts took first and second in two classes; the blue ribbon filly took the red as champion mare against all aged mares. They are high-class; sound; good feeders; thoroughly acclimated. They are too classy to sell at living prices in this country.

JOHN W. WRAY, FT. WORTH, TEX.

PERCHERON HERD HEADER

For sale. Black (star); 8 years old; 2100 pounds; No. (46117); broke single or double. Used but once a day for past three years. An International winner and the sire of as good as grows. Refused $1000 for 11 months filly. She weighed 1300 at 11 months and won first in class and reserve champion for mare under three years old at American Royal, 1912. Have to change on account of fillies.

Also one coming two years from this horse; also a Royal winner, 1912; black; will make 2100 pounds. These are not pampered but fed for breeding.

I am a graduate of the Graham Scientific Breeding School. This ad will not appear again

ARTHUR COLEGROVE, Girard, Kans.

4 GOOD PERCHERON STALLIONS.

Two Are Imported; Two Home Bred.

And all ready for service. These are for sale at reasonable prices. I have also for sale several younger stallions and some imported and American bred mares and fillies, all good.

MANUEL CROSS, Adrian, Minn.

STALLION SERVICE RECORD BOOK

This book has 200 pages like the specimen page in this ad. It is substantially bound with a good, strong waterproof cover. It has 20 index pages for keeping the owners' names in alphabetical order so that any name or mare can be found quickly.

The breeding contract at the bottom is the strongest possible kind of a note. It is a big help in making collections, as nearly every state has a law for the collection of labor debts without exemption, and this is a contract to pay for services rendered. Before it is signed run a pencil through two of the lines in the contract, leaving the line that makes the kind of a contract you want. Many will sign a contract who would refuse to give a note.

This book has a calendar and a gestation table. It can be used for several sires without carrying more than one book. This is the most complete and up-to-date service record book printed. It is a nice size and can be carried easily in any pocket. Every breeder should have one. After improving it for several years, the result is this most satisfactory book. A complete new edition is just out. Although this new book has double the capacity of those offered heretofore, it sells at the old price. It is not bulky as it carries no advertising or other unnecessary matter. It will be the standard record book used by the leading breeders.

If you are not satisfied with the book or do not consider it the best and cheapest on the market, return it and your money will be cheerfully refunded. The price is 50 cents; six for $2.75; postage prepaid. Send all orders to the

GRAHAM PUBLISHING CO.,
225 West 12th Street,
Kansas City, Mo.

Sire .....

Mare ..... Color..... Age.....

Marks. .....

Womb {Closed / Healthy / Loose} Height. ..... Colt {Yes. / No.}

Mare Owner .....

P. O. .....

DATE BRED.

Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.

RETRIED.

BREEDING CONTRACT

$_____ Date_____

For services rendered, I promise to pay_____

_____

_____or assigns_____dollars

When above described mare is known to be in foal
When above described mare delivers a living colt
When colt of above described mare stands and sucks

or before mare changes ownership, mortgaged or leaves county.

Signed _____

Page_____

SPECIMEN PAGE; EXACT SIZE.

such a large amount of information during such a short period.

It is necessary to take sufficient exercise and to provide for that the class goes in a body for occasional brisk walks and visits to places of interest. This is the time for fun and amusement. The manager of the school is always in the lead and knows where to take the class. Sometimes he gives a signal and the class surrounds him and crowds up as closely as possible, each one looking toward the ground in the center. This creates a lot of excitement and a large crowd soon congregates to see what has happened. When the first policeman starts toward the crowd, the crowd moves on leaving a lot of people wondering what it was all about. At another place the class will focus their eyes on some object on a tall building until a lot of other people become seriously interested in that particular object. Then the class again moves on. A little fun and recreation is necessary where men are working so hard.

There is a spirit noticeable in every class which is hard to describe. These men stay together just long enough to get nicely acquainted, then they must separate. As the time advances when the class shall be scattered to the four corners of the earth, it is not uncommon to see a majority of the men with tears in their eyes bidding each other goodbye. Practically every class is the same way. Practically every one who attends testifies to the good character of those with whom he has associated. They find kind, brotherly love and the best of care. It is these little things in life that bring men satisfaction and good spirits.

The management of a school of this kind is in a very responsible position, but the pleasure of meeting and working with these good citizens, and the success obtained, is worth the effort. No man ever attends this school who does not go home a better man.

The next term begins early Monday morning, February 2, and lasts one week. The tuition fee is $25 for a life membership. The school guarantees to please the student in every respect or the tuition fee will be refunded, the student alone to be the judge. Every student will have an opportunity to get his tuition fee back if he asks for it, and without any restriction. There are no agents or commission or "pets" connected with this school. All men are treated alike. Do not ask for any concession. The money from one man is just as good as another and will go just as far. Following are statements from some who have attended the school:

Jan. 10, 1914.—I can truthfully say that I never spent a week more profitably in my life than the one spent at the Graham Scientific Breeding School. I came with the expectation of learning to be a successful horse breeder. I went away with my expectations more than realized, and besides I learned what I was not expecting, how to become a successful citizen, and it gave me a new inspiration to endeavor to become a builder of character in my neighborhood.—Lewis B. Tietze, Oakland, Mo.

Jan. 10, 1914.—This is my first time to attend the Graham Scientific Breeding School, and if I stay in the breeding business it will not be my last. The lessons I got from the dissecting of the two animals with diseased genital organs, doubly paid me for my time and expense. Also the lesson on foaling and caring for the foal. I would advise any one who owns stallions and jacks to attend this school by all means. I want to thank Frank B. Graham for the kind treatment I received while attending his school. Will say again, I am more than pleased with this, the January term, 1914.—B. H. Hunter, Earlsboro, Okla.

Jan. 9, 1914.—I have spent $150 and my time to attend the Graham Scientific Breeding School, for which I feel well paid. I wish to state further, that I was very agreeably surprised to find that every man's religion was respected; that the instructors kept a vigilant watch over each and every boy who came to the school; guarded him from sin and temptation, and always extended a brotherly hand to lead him on, and elevate him to a better life.—Wilford F. Burton, Afton, Wyoming.

Jan. 10, 1914.—I attended the January term, 1914, and was well repaid for time and money spent. The lectures and demonstrations are worth many times the cost of everything.—E. J. Bliss, Bloomington, Kans.

Jan. 10, 1914.—I attended the breeding school and surely am pleased with the results I have had since with the capsule breeding. I think examining the mare is worth twice as much as it cost me. I think any man that has a horse or jack cannot afford to do without attending the school.—E. J. Frey, Pender, Neb.

Jan. 10, 1914.—This is the second time I have attended the Graham Scientific Breeding School and I consider it time and money well invested, and it will be to any one who is in the breeding business.—Delbert Archer, St. Charles, Iowa.

Jan. 10, 1914.—I think the Graham Scientific Breeding School one of the most instructive schools I have ever heard of. It was away beyond my expectation. Every horse man should attend.—Wm. Hoehn, Eagle Lake, Minn.

Jan. 10, 1914.—Stock men, mare owners and stallion owners, and also cattle and hog owners I would advise you by my experience at the Graham Scientific Breeding School for the breeding of stock of all kinds, to attend this school. They have the best instructors that are to be found in the United States, and another thing I can say, that you will find Mr. Graham and all of his staff, strictly honest, moral and clean, and would advise all that can to attend. This makes my fourth time attending and will try and attend once a year as long as the school lasts. At this school I saw two of the best specimens of two of the worst diseases we have to contend with as breeders, and had a chance to examine them myself, and this alone is worth the $25 to any breeder.—Lew Jones, Alma, Kans.

Jan. 12, 1914.—After attending one term of the Graham Scientific Breeding School I am convinced of the value the school is to the stallion or jack owner, and the breeder who wishes to better himself financially or produce a better animal for the market. The instructors are up-to-date in research work. Scientific and practical methods are taught in a manner which the student can grasp. The management is also to be commended for what it is doing for its students along the line of better citizenship.—C. G. Simpson, Quinion, No. Dak.

LA FAYETTE STOCK FARM

Largest Importers in America of Percheron and Belgian Stallions and Mares. Over 200 head on hand. When your locality has a horse from this great farm every one knows he is the right kind. Write us or come and see us.

We are also breeders of pure bred Hampshire Swine.

J. Crouch & Son, Props. La Fayette, Indiana



The North & Robinson

Imported and Home Bred Percheron, Belgian and Shire Stallions and Mares acclimated before selling and put out in condition for service, have earned for us

MORE SATISFIED CUSTOMERS

in Nebraska and adjoining states than any other firm can show. We have the farms, the feed, the climate and the experience to import and breed and handle draft stock economically and successfully, and our customers as well as ourselves reap the benefit.

Never Less Than 100 Head on Hand.

Come any time; we can supply any need in this line.

NORTH & ROBINSON Co. Grand Island, Neb.



WANT A HIGH CLASS PERCHERON FILLEY?

OR SOMETHING STRICTLY GOOD IN STALLIONS?

Favorite (her photo at left) is out of Fearnaught Daisy by Baccaret, by Besigue by Brilliant III; sire Hugenot by Morse, tracing to Besigue by Brilliant III. Favorite is 2 years old, a futurity winner at Des Moines as a yearling, and weighs nearly 1,800 pounds.

Among the stallions are Grannot, 1,500 pounds at 17 months, a true draft type and strongly Brilliant bred. Also a 4-year-old, 2,150 pounds; a proven sire of good ones. Als oa dozen extra good brood mares, heavy in foal. Terms cash or bankable paper.

C. F. JONES,
Whitehall Farm, Rippey, Iowa.

HOMEWOOD STOCK FARM

STALLIONS AND MARES

Percherons, Belgians and Shires

OF SIZE AND QUALITY AT PRICES TO SELL THEM.

If in the market for a PAIR OF MATCHED BROOD MARES OF either breed, or a FIRST CLASS STALLION, write us for full particulars. HOMEWOOD is on the main line of I. C. and Big Four Railroads, 23 miles south of Chicago, with suburban trains to and from the city every hour. BARNS IN TOWN.

BELL PHONE HOMEWOOD 58W S. METZ & SONS, Homewood, Illinois

We have 40 head of Percheron and Shire Stallions and Mares at our Branch Barn in Pendleton, Oregon, in charge of M. C. Metz.

300 PERCHERONS

We have 50 suckers, both sexes; 100 yearlings, both sexes—Imported and Home Bred; 150 matured stallions and mares, from Two to Six Years.

We have the best mares and fillies we ever owned or ever saw. Our yearling stallions are of heavy bone and extra good quality. Our 2-year-old and matured stallions are not excelled by any barn in the United States. Our mares are bred to our best $3,000 stallions, Honorable and Jalape.

We have been in the horse business 39 years. Stock just as represented or we pay your expenses to look at them.

SINGMASTER & SONS, Keota, Iowa

Branch Barn Sioux City, Ia. **SINGMASTER & WALKER.**

PERCHERON STALLIONS

IMPORTED AND HOME BRED.

To dissolve partnership we will sell two black imported stallions weighing 1850 and 2100 pounds; sound; sure foal getters. Priced to sell. Also have home bred stallions from weanlings to coming three year olds for $250 to $500. For particulars, address

C. B. DANNEN & SONS, :-: **Marshalltown or Melbourne, Iowa**

LAST CALL! LEE BROTHERS PERCHERONS!

MANHATTAN KANSAS, TUESDAY, JAN. 27, 1914

At the Kansas State Agricultural College Sale Pavilion. Steam Heated



THE CHAMPION MARE MARCELLENE.

40 Imported and American Bred Percheron Stallions, Mares and Colts, including our entire show herd 1913, except the Champion, Scipion 27123 (43667).

22 Mares bred to the Champion, Scipion 27123 (43667), the champion of France and America, also made champion Kansas State Fair, 1913, at the age of 16 years.

15 Stallions including two of our two-year-old 1913 show stallions, weighing over 2100 pounds each.

Reinhard, the reserve champion of four shows—no doubt the greatest two-year-old stallion that will go through the sale ring in the United States in 1914. Weanling colts sired by Scipion.

Our two 3-year-old mares, Marcellene and Flora were placed first and second in every show; four times champion and reserve; undefeated harness pair; Madeline and Monita, our two undefeated yearlings, also Nita by Scipion; out of Beattie, champion Inter-State Fair, St. Joseph, and undefeated.



REINHARD, THE RESERVE CHAMPION STALLION IN THE SALE.

Our Season's Show Record Summarized: 32 champions and reserve champions out of a possible 44; 130 firsts or blue ribbons out of a possible 145 chances in the following shows: Kansas State Fairs, Topeka and Hutchinson; Inter-State Fair, St. Joe; Missouri State Fair, Sedalia, and the Great American Royal Live Stock Show, Kansas City, Mo.

Write us for catalog or other information, mentioning the American Breeder. Spend a day at this sale and see the world's greatest Agricultural College and the season's greatest sale.

LEE BROTHERS, Harveyville, Kansas

Auctioneers:—Harriman, Snyder, Crews and Brady.

SALE OF PERCHERONS

Wednesday, February 18th, at Enid, Okla.



One of our first prize two-year olds, from photo made at Oklahoma Fair

24 Registered Stallions and Mares.
12 Stallions; 9 ready for hard service.
12 Mares and Fillies; 6 safe in foal to the champion stallion imp. Hautain 63719 (75605).

This sale will include most of our 1912 and 1913 show herd, including the champion mare, May Queen 66172, probably the best mare that will be sold in a sale ring this year, in the United States, and also the undefeated show filley Coretta.

Sale will be held in the City of Enid, at the Delmar Garden, Steam Heated. Write for catalogue at once.

AUCTIONEERS:
Snyder, Burgess, Shanks and Rainey.

W. S. Boles & Sons,
Enid, Oklahoma.

Jan. 10, 1914.—I must say this for the Scientific Breeding School, that everything taught there is true, clean and right, and I recommend it to anyone, young or old, regardless of their profession. I was particularly interested in the barren mare diseases and capsule system. I thought I knew a little about horse breeding before I attended, but I found I didn't know anything. I thank the staff of instructors very heartily for everything they have taught me, and I shall return at some future time.—H. K. Eggers, Byron, Nebr.

Jan. 10, 1914.—Having attended the January term of the Graham Scientific Breeding School. I earnestly recommend it to any one who is interested in the breeding of live stock. New discoveries and surprises every hour is the order of the day. It is conducted by a clean, fearless set of men who are at the head of their class, and give you the last word on their subjects. The moral talks given were worth the price of the tuition to me, and the knowledge I have gained I consider invaluable.—Geo. Miller, Montrose, Colo.

Jan. 10, 1914.—I attended the last term of the Graham Scientific Breeding School and will say that any one wishing to go into the breeding business will not make a mistake by attending one or more sessions as it will show you why a large per cent of the mares are not producing colts. The average of our Northern states is only 38 per cent, on account of a disease infection at breeding time.—J. J. Bonnstetter, Corwith, Iowa.

Jan. 10, 1914.—The Graham Scientific Breeding School is the best thing I have ever attended, in cleanliness and the building up and doing the right thing with our live stock and ourselves.—J. E. Friesen, Moundridge, Kans.

Jan. 10, 1914.—I have attended two terms of the Graham Scientific Breeding School and will say that no man in the breeding business can afford to miss it. I think it one of the greatest institutions in America.—J. F. Wood, Alma, Ark.

Jan. 10, 1914.—I consider the time and money spent attending the Graham Scientific Breeding School, the best investment I ever made.—Lem Laflen, Milo, Mo.

Jan. 10, 1914.—I attended the Graham Scientific Breeding School January 5-10, 1914, and want to say that the principles and instructions and morality of all instructors are above reproach. These lessons are the result of scientific research of the ablest horse men of the world. The instructions on capsule breeding and the diseases of the male and femals organs are the best.—Wm. T. Shaffer, Litchfield, Nebr.

Jan. 10, 1914.—I think the Graham Scientific Breeding School is the best place for stallion and mare owners to

R. L. HARRIMAN, Bunceton, Mo.

The Fine Horse and Jack Auctioneer of the West



I sell more horses and jacks than all others. Terms always right: work always up to the highest standard.

SIX FIRST CLASS PERCHERON STALLIONS

For sale: 1 nine-year-old black, vide and low; used him 6 years in my erd and is an extra breeder. I five-ear-old gray, wire scar on one foot. Good, broke to work. 1 eleven-year-ld black; imported. 1 extra good oming two-year-old. Choice of the bove $600.

Also: 1 four-year-old black; 12½ nch bone, will make very large horse. ne 5-year-old black; a nice ton horse. These two have extra quality, style nd action. Choice of the two, $1,000.

I. L. HINCKLEY, M.D., Barnard, Kas.

PRICED TO SELL.

A dark iron gray three-year-old registered Percheron stallion; weighs now ,800 and should mature at a ton. Extra heavy bone; well proportioned; a ood server; gentle and broke to work. ired by Minet 44897 (60963) and out f a $700 black 1900 pound mare; other olts to show her breeding.

If in the market for an extra good tallion at a breeder's price, call or rite at once.

. P. FREIDLINE, Caney, Kans.
Route 1. Bell Phone.

PERCHERONS

AND ONE JACK.

Stallions, mares and colts. All of esirable ages. Prices from $250 up. he right kind. Come and see them. he jack is black with light points.

. M. STEPHENS, Munden, Kas.

IMPORTED AND HOME BRED STALLIONS AND MARES.

PERCHERONS, BELGIANS, SHIRES.

The best importation we ever made now in our barns ready for inspection. The mares include some of the est fillies that came out of the Perche his year. See what we have before uying elsewhere. **Address Hart Bros., sceola, Iowa.**

PERCHERON STALLIONS

For sale. Eight head of two year d stallions (coming 3); one 5 year d stallion, also yearlings and weanngs. All recorded Percheron Society America. Blacks and greys. Good dividuals and priced where you can fford to buy.

WRIGHT BROS.,
t. Pleasant, Henry County, Iowa.

PERCHERONS

Mares and Colts.

25 head imported and American bred. Have six two year olds that weigh 3,000 to the team; dark greys.

JOHN PECK, Lexington, Ill.

wo Stallions for Sale; also Fillies and Mares.

One Black Percheron 3 years old; ne Clydesdale 2 year old, and a bunch Clydesdale Fillies and two mares 7 nd 8 years old. This is all registered ock—some of them imported ock on both sides. For further information inquire of

hn Sparrowhawk Wakefield, Kas.
(Forty Years a Breeder.)

DRAFT MARES FOR SALE

One team of registered French draft ares; age 8 years. The large kind.

. F. BRANDES, Long Point, Ill.

GET YOUR REGISTERED Road and raft Stallions and Mares of the breed- at first cost. **E. P. Hamilton & ons, Garden Grove, Decatur County, wa.** 23 miles S.-W. of Chariton, Ia., miles south of Des Moines, Ia., at eroy.

PERCHERONS

For sale. Two Besique stallions; acks; coming 2 and 3 years old; und. Also a few mares.

B. WHITAKER, Forest City, Ill.

PERCHERON STALLIONS.

A choice pair of two year olds; acks; plenty of size and bone.

M. DULL & SON, Washington, Kas.

Percherons at Auction

(A Dispersion Sale)

Oskaloosa, Kansas, January 29

On the above date we close out our reserved stock as follows:

7 Young Stallions
13 Mares and Fillies
6 Mares Safe in Foal

Over half this offering are grandsons and daughters of Imp. Casino. Colors mostly black. Stock in good thrifty breeding condition.

Send at once for catalog mentioning the American Breeder.

SNYDER & STALONS OSKALOOSA, KANSAS

Jas. W. Sparks, Auctioneer

DUNHAMS PERCHERONS

are today, as for the past 50 years, the BEST, as shown conclusively at the fall fairs and International.



We now have at Oaklawn a most excellent and uniform lot of stallions and mares, having just recently received a LARGE NEW IMPORTATION.

If you want the best—stallions or mares—visit Oaklawn.

Prices reasonable—guarantee the most liberal. Send for free catalog.

DUNHAMS WAYNE, DU PAGE COUNTY, ILLINOIS

Joseph Rousselle & Sons, Seward, Nebraska

PERCHERON, BELGIAN AND SHIRE STALLIONS AND MARES

We make a specialty of good, big, rugged type and action. Our two year olds weigh from 1800 to 1900; age horses from 1850 to 2260. In fact, we can show about as big horses as are living. We were in Europe early, which enabled us to get the right kind. We are natives of France and save in buying, also in selling to customers. Prices from $900 to $1,250; a few tops a little higher; home-bred come cheaper. Will furnish a state license according to the Nebraska law. Our guarantee and terms are right. Write, or better, come and see us. Seward is 26 miles west of Lincoln. Farm joins city on the north.



20—STALLIONS, JACKS AND JENNETS—20

Imported black Percheron stallions, 5 and 6 years old; weight from 1700 to 2100 pounds. These horses are well broke and tried breeders. Can show best colts in Kansas. Also one fine sorrel Morgan stallion, 7 years old.



Big, black, registered Mammoth jacks and jennets; 1 to 5 years old. Jacks 15 to 16 hands high; tried breeders and quick workers. Can show colts. Herd headed by imported Spanish jack. We won more prizes at the Kansas State Fair in 1912 than all our competitors. Farm 30 miles Northwest of Hutchinson. Come and see us. Will meet trains at Chase or Raymond. **J. P. & M. H. MALONE, Chase, Rice County, Kans.**

35 HOME-GROWN PERCHERON, SHIRE AND BELGIAN STALLIONS AND MARES AND 50 REGISTERED JACKS AND JENNETS.

of the big boned, rugged kind, from 14 to 15½ hands high. This stock is all pasture raised and runs in the open. Will make a special low price on my imported Belgian herd horse, Champion 4980 (58644); sorrel; weight 2,200 pounds. His fillies are in the way. This horse is 6 years old and a sure breeder. All stock sold with breeding guarantee.

HENRY BECK, LITCHFIELD, NEBRASKA.

150 STALLIONS

Imported and home-bred stallions. I guarantee to sell you stallions for less money than any firm in America. Come to a Live Horse Market and see all draft breeds. Reference, any Bank in Creston. **A. Latimer Wilson, Creston, Iowa.**

PERCHERON STALLION.

For sale. Registered; record No. 58052; 5 years old; good foal getter. Price, $400, if taken soon. This ad will not appear again. Address

WILLIAM WAHLERT, Ervay, Wyo.

get knowledge as to breeding, selecting and raising good horses. Any lecture on any subject is worth the tuition. The way the school is conducted is the best in every respect.—J. E. Downing, Whiteside, Mo.

Jan. 10, 1914.—I have attended the Graham Scientific Breeding School and can say that it is money well spent for any one having either a mare or a stallion. Any one of the lectures is worth the tuition fee.—Will Schrepel, Ellinwood, Kans.

Jan. 10, 1914.—I find the Graham Scientific Breeding School as represented in every way, and am sure one or more terms will be worth many times the cost.—E. R. Shaw, Oneida, Ill.

Jan. 10, 1914.—I consider the Graham Scientific Breeding School one of the greatest institutions ever established, and am satisfied that any one attending and applying himself can become proficient along the lines taught. It will not only make of him a great help to the live stock industry of this country, but will better him morally and therefore, indirectly better mankind in general.—Hugh M. Cottier, Mound City, Mo.

Jan. 10, 1914.—The knowledge I received at the Breeding School on barren mares alone has reimbursed me for all my expenses.—W. H. Williams, Goldsmith, Ind.

Jan. 10, 1914.—The Graham Scientific Breeding School is one of the grandest schools going. It treats on barren mares; diseases of the genital organs; testing the stallion to see if he is fertile; how to tell when a mare is in foal and how to produce more colts and not overwork your horse.—W. A. Mathes, Meadville, Mo.

Jan. 10, 1914.—I think this is a very good school and a man or boy can go and is in care of the school. It is the best school a man can attend where he can learn about his stock, and you can learn something that you have never heard of before. —John Hesse, Dunkerton, Iowa.

Jan. 10, 1914.—Any one in the horse business—mare or stallion owner—cannot make a mistake by attending a term of the Graham Scientific Breeding School. Any one of the many subjects treated is worth many times the tuition and the time spent.—Roy Forsgren, Brigham City, Utah.

Jan. 10, 1914.—I consider any one lecture at the Scientific Breeding School well worth the tuition to any stock owner.—Snowden Hunt, Liberty, Mo.

Jan. 10, 1914.—Any one interested in scientific breeding will be greatly benefited by its teachings, not only of breeding, but it will teach you the points that are necessary to become a successful horseman.—Frank Laskie, Bucyrus, Kans.

Jan. 10, 1914.—I have attended the Graham School and think it is time and money well spent. Do not be afraid to send your boy.—S. P. White, Oakland, Iowa.

Jan. 10, 1914.—I have attended the Graham Scientific Breeding School for the third time. I must say that the instructions received at this school are A1, and far better than I ever expected. The professors have made a great advance in their teachings, and no man can say that he has no opportunity to learn something new at every term. The lectures on diseased mares and anatomy are great —Henry Dreher, Columbus, Nebr.

Jan. 10, 1914.—I attended the Breeding School this January. I think all breeders of live stock should arrange to attend.—Oscar Martens, Prole, Ia.

Dec. 31, 1913.—I have attended your school and think it will pay any one in the horse breeding business to attend, and will recommend it to others, old or young.—W. H. Blank, Napoleon, Ohio.

Dec. 31, 1913.—I think the school so good and the language so clean, that nobody need be afraid to attend.—Herman Henderkott, Eldridge, Iowa.

Percherons

For sale. One imported, nine years old; weighs 1850; black. Two coming three; black and grey; weight 1850 and 1800. Will make a ton each. Buy them of the farmer and breeder.

CHAS. E. WARREN,
Sutherland, Iowa.

15 Percherons For Sale

Have as choice a lot of Percheron stallions and mares, from weanlings to 7 years old, as are to be found in the West. My colts are pasture raised; my stallions weigh better than a ton at maturity; are sound and sure breeders; at farmer's prices.

D. TEINERT (Route 4) YORK, NEBR.



FIFTY STALLIONS AND MARES.
$250 to $1000 Each.
Write for my illustrated **Circular telling why I can save you money** on the purchase of Percheron or Belgian stallion or mare.

A. W. GREEN,
Middlefield, Ohio.
R. R. Sta., E. Orwell, on Penna. Ry., between Ashtabula and Warren.

Percheron Stallions

For Sale. Seven head of registered stallions, ranging in age from 1-year-olds to 7 years, and one imported stallion. Also a few mares, mostly all black. Will sell at a bargain. I also have two good stallion colts under one year old for sale.

J. T. SCHWALM, Baldwin City, Kans.

PERCHERONS.
Young Stallions—Brood Mares.
Stallions coming 2 to 4 years; mares all ages. A big, rugged, drafty, heavy boned lot, with plenty of quality and action. Blacks and greys. A large per cent sired by our herd horse, Superior 40605; weight 2300. Our horses are roughing it and are NOT overloaded with fat. JAMES LOONAN & SON, WATERLOO, IA. Farm 3 miles from Hudson; 8 miles from Waterloo.



FISHER & WALKER
Importers and Breeders of
PERCHERON HORSES
and dealers in Standard Bred Horses, Tennessee and Kentucky Jacks.
Main barn, 1215 E. Missouri St., Evansville, Ind. Branch barn, Greeley, Colo.
All stock guaranteed and priced right and terms to suit customer.
References, Banker's National Bank.

REGISTERED PERCHERON STALLIONS
For Sale. One large dapple grey; coming 4 years; extra well made and heavy boned; weight 1950 pounds. One dark grey coming 3 years old; a fine individual; weight 1750. Also one or two weanling stud colts; dark grey. Prices very reasonable.

F. E. AIKMAN,
Lyons, Clinton County, Iowa. Route 1.

FARMERS

I can save you money on good, heavy boned, rugged Percheron stallions from a strain that are producers. They have never been beaten in a show ring. If you don't find these as represented will pay your expenses. For particulars write.

A. U. DUNBAR,
Galesburg, Ill. Route 1, Box 12.

REGISTERED PERCHERON STALLION
For sale; weight 1900; 9 years old; an extra good breeder and sure foal getter. First draft for $350 gets him.

C. E. HODGDEN,
Galesburg, Neosho County, Kans.

MAPLEWOOD PERCHERONS.
A choice selection of stallions and mares. Buy them direct from the farmer and breeder at farmer's prices.

C. G. ANDERSON,
Hector, Minn. R. 5. C. M. & St. P. R. R.

PERCHERONS
For Sale. Imported and home-bred stallions and mares at prices that will sell them.

H. REDENIUS,
RUSHMORE, Nobles County, MINN.

Two Percheron Stallions

For Sale. Coming 3 years old; registered. Price, $400 for choice.

W. E. DUSTIN, Topeka, Kans., Route 1

Questions and Answers

(Continued from page 5.)

of the rein close up to the bridle and walk by his side so that it will not be necessary to tear his mouth to pieces.

647—STALLION CHEWS BRIDLE REINS—I have a stallion that wants to bite and chew his bridle reins. I have whipped him but it seems to do no good. Please tell me what to do.—Mississippi Subscriber.

REPLY—Use a good, big, strong rope on the bridle. Soak the rope in coal oil before you use it, and if this does not stop him, sprinkle iodoform on the rope.

648—MAMMOTH JACKS—What is the original color of the Mammoth jacks?—Nebraska Subscriber.

REPLY—The word "Mammoth" does not mean a breed of jacks; it is a strain of jacks, the same as the word "Hambletonian" is used with trotting horses. This is a mistake that is frequently made. The Mammoth jacks originated in Spain and are of all colors, usually blacks, bays and browns.

649—FEEDING COLTS—I have four half breed Percheron colts (weanlings) and am feeding them all the alfalfa hay they will eat (second crop). Is it the proper way to feed them, or should the hay ration be limited and some grain fed?—Montana Subscriber.

REPLY—The price of feed in your section must be taken into consideration. Ordinarily we would advise oats with alfalfa. If prairie hay or other roughness is cheaper than alfalfa, about half of the cheaper roughness might be substituted. You will find that oats will be a benefit with your alfalfa hay. Other grains might be used, but perhaps the oats will be cheapest in your section.

650—EFFECTS OF BETTER BLOOD—I have two weanling mare mule colts; one out of a 1350 pound mare and a big jack; the other out of a small cayuse mare and a small jack. The latter is the largest and best boned mule at present. Which will make the best mule at maturity?—Montana Subscriber.

REPLY—Occasionally a small mare or a small jack may produce excellent progeny but the growth is usually quicker from the small stock than the larger. In this particular case the colt from the small mare might accidently be the largest, but in all probability at maturity the colt from the big mare and the big jack will be worth two or three of the other ones. The size of colts at weaning time frequently depends very much on the milking qualities. A colt from a mare which is not a good milker should be fed some grain before it is weaned. If it is desired to raise good, big stock, particular attention must be given to blood lines. It is folly to expect little undersized breeding stock to produce mammoth animals; there are a few men who believe that this can be done with regularity, but they are short of judgment and experience.

651—A PARTICULAR WESTERN BRAND—I see horses branded on the left hind quarter with a figure "2." They are apparently western range horses. Can you tell me whose brand this is and give me the owner's address? Would like to learn what kind of stallions he has been using.—Missouri Subscriber.

REPLY—We do not know the name and address of this ranch. If any of our readers can supply this information, we will be glad to publish it.

652—THREATENING ABSCESS—We have an 8-year-old mare that got a sore neck the last of July that swelled badly on both sides of withers. We quit working her at once and began using Caustic Balsam once a week, rubbing according to directions. Continued the treatment for two months (using two bottles of liniment). One side went down in a short time, but the other remains a little large. It is not sore or tender and does not seem to change in any way. About a month ago we had her examined by a competent veterinarian and he decided there was no signs of pipes or pus, and advised us to leave her alone. Have been working her some lately and she shows no signs of being tender. This is a valuable mare and we would like to have this enlargement reduced, if possible. Would like to have your opinion as to whether this is likely to cause future trouble. Would also be pleased to have you advise us how to reduce this enlargement.—Kansas Subscriber.

REPLY—In such cases it is well to leave well enough alone. It is very likely that some pus has formed at the point of the enlargement and it is being encapsulated and may not give you future trouble. It will be time enough to give it attention when that time comes. She is better off as she is than to have a case of protracted fistula at the point of the withers.

653—DISEASED TOOTH—I have a 4-year-old horse that has a small abscess under the right jaw on the inside. On about the first of October, 1913, this horse failed to chew and swallow its feed. Would take in hay or sheaf oats; he would chew until he would get a good mouthful and then spit it out. Could not bite off ear corn. Would pick grass until he would get a good mouthful, then chew some and spit it out. Instead of biting the grass off he would rather pull it off or up by roots. He gaunted and reduced in flesh 170 pounds in five days. Could drink water very well, and could eat some wet wheat bran with soft corn cut off ear and added to it. I chopped some fodder fine and mixed with bran and corn, but he would not eat it. So he lived on about five to six quarts per day of the bran and corn for about five days, then began to gradually get better. I had four of the best stock men I could get examine his mouth, throat and teeth. Could find nothing the matter. They looked closely for a nail sticking in gum or throat. They examined the teeth and could find nothing wrong. They felt all around the teeth and gums and could find nothing wrong. There are veterinarians near me so I phoned and talked to one and he said he could not tell from my description what was the matter. I recollect that when the horse chewed you could not hear his teeth grind or make any noice. He apparently got well and I put him to work, and in about three weeks after he had gone to eating I noticed this small abscess under the right jaw and it is still running a whitish corruption. The opening is very small and the amount of discharge is small. It appears that it is near the root of the back teeth on inside of jaw. The horse eats as good as it ever did and I am working it every day. What is the mater with him and what can I do for him?—Tennessee Subscriber.

REPLY—It is very likely that an abscess formed at the root of one of the molar teeth which was the cause of the trouble, and when it broke the animal was relieved. It is very likely that the root remains diseased which is the cause of the part not healing up. Better give your veterinarian a chance to look the case over for you. Such cases do not show anything wrong in the mouth as the root alone is usually the only part involved.

IMPORTED PERCHERON STALLIONS

Each year I select 35 or 40 horses in France, so good and so correct in type, that any one of them will prove a great benefit to the man who buys it.

At the shows of the Southwest circuit, our horses won every championship and every group of five in 1913, as they have done most of the past five years. Our horses are handsome; our contract just and right; our insurance the best. Come and see me.

PERCHERON IMPORTING CO.,
CHAS. R. KIRK, Mgr. South St. Joseph, Mo.

PERCHERONS at PRICES

that will profit early buyers of both stallions and mares. The mares range in age from 4 to 8 years old, and the stallions from 3 to 5. I have been in the business a long time and wish to reduce my stock. These are all good ones. If sold in a bunch I will make the price right.

I. H. VANNORSDEL, Kingsley, Iowa

THIRTY PERCHERONS AND BELGIANS



and one Shire. They range in age from 1 to 7 years; all sound and heavy boned; weighing from 1800 to 2,200 pounds. There are 17 stallions and 13 mares. I will also sell my herd stallion, Jupiter 65723, coming 5 years old; weight, 2200.

These stallions are all sold under a guarantee to be 60 per cent foal getters. I have four year olds that weigh 2200; 2 coming 3 that weigh 1800. Can sell a good ton stallion for $750; sound and right in every way; some a little higher, and some lower. I will sell at a bargain to early buyers. I have both imported and home bred stock. **PETER J. EGGERS, DENISON, IOWA.**

I. C. EVANS, Troy, Iowa
IMPORTED AND AMERICAN BRED PERCHERON STALLIONS AND
mares for sale at right prices. Recorded in Percheron Society of America. If in need of a good stallion or mare, you had better get busy, and buy of me. I will guarantee square dealing with the right kind of stallions and mares to satisfy you, with quality and weight.

75-PERCHERONS-75

Thoroughly acclimated. Young; good colors and very high class.

CRANDALL & DANFORTH,
Randolph, Minn.

PERCHERONS, BELGIANS AND GERMAN COACH MARES AND STALLIONS
of all ages for sale. I have recently taken over the entire stock of horses formerly owned by the firm of Ives & Bellman and can furnish patrons with first-class breeding stock of the foregoing breeds. Have a fine lot of 2 year old and older stallions to select from. Address,

WILL BELLMAN, R. 1., Delavan, Wis.

PERCHERON AND FRENCH DRAFT.
18 Registered Crosses of Our Own Breeding.
Fifty Years' Experience.
Yearlings to 6-year-olds for sale; big boned and blocky at home prices; $200 and up. Forty head now on farm. Come and see and buy at half what they might cost you elsewhere.

G. B. Loper & Sons, Chesterfield, Ill.

PERCHERONS

I now have on hand a very choice lot of good young stallions and mares of all ages that I am offering at bargain prices. Terms to suit. Will also furnish horses of all kinds on orders from one to car load lots. Barn in town.

A. R. IVES, Delavan, Wis.

PERCHERONS AND BELGIANS.
54 imported and home bred stallions and mares. New importation in September of big bone 2 and 3-year-olds. Weight, 2100 pounds. Look us up. We can suit you. Reference, any bank in Jones county. WM. A. HALE, PROP. GRAND VIEW FARMS, ANAMOSA, IA. 25 miles northeast Cedar Rapids.

PERCHERON AND BELGIAN
Stallions. Can show the buyer one stallion or 50 head at prices from $450 and up. Some weigh 2,160 pounds. Also ten good breeding jacks. For sale, part cash and the balance on long time payments, 1, 2 or 3 years at 6 per cent.

R. I. LITTLE,
Fairfax, Iowa. Route 2.

PERCHERON STALLIONS
For Sale. One 6-year-old; dapple grey; fine specimen; great breeder, registered. One coming 2 years old; registered; bay.. One black pure bred Percheron stallion 10 years old; weight over a ton. Address—

COL. E. H. URTON, Clarksville, Ohio

FOR SALE OR TRADE

One registered Percheron stallion; weight 1800 pounds; eight years old; sound; black with white strip in face; good disposition; broke to all harness; fine style and action; colts to show. Also one Arabian stallion; white and bay; weight, 1275; six years old and sound; broken to all harness; good single or double driver and fair under the saddle. Will trade for a good jack, young mules or registered Percheron fillies. Reason for selling, I intend to use the capsule system.
W. H. GOSNEY, GODDARD, KANS.

Percheron Stallion

For Sale. Hoosier 65573; color, blue-grey; 5 years old; weight, 1800 pounds in work flesh. Colts to show. A very good individual and priced to sell.
POWELL BROTHERS,
WEISSERT, Custer County, NEBR.

PERCHERONS.

For sale—A black-grey stallion; 5 years old; weighs 2,000 pounds; has great bone; deep in girth; short in back; good feet; fine style and action, and a first class breeder. Sold for no fault. Also have a 5-year-old mare and spring stud colt. These horses are sound and I will sell them right, as I want to quit the business.
PHILIP SCHWADERER,
Agosta, Ohio. R. F. D. 2.

HORSES AT PUBLIC SALE
February 18.

At my farm near Elmore, Minn. Imported Percherons and Belgians. I am going to retire from the business and offer these well known strains at public sale. Belgian, Cortil 4995. Percherons, Marcel 22nd 90564, Ironie 80407 and one registered filly. Write us for more information. It will pay you.
PAUL C. OLDENBURG, Auct., or GUST. WUDTKE, Owner, Elmore, Minn. On C. & N. W. and Omaha R. R.

THREE GOOD STALLIONS

Two Percherons and one Clydesdale; all registered; one 8 years old; dappled grey Percheron; weighs 2100. An extra fine breeder. One coming 3; a steel grey Percheron. An extra fine colt; will make a prize winner. One Clydesdale; 5 years old. A beauty that can show bone and quality with any one. If you are looking for a good stallion, come and see me. On M. & St. L. R. R., Monmouth, Ill.
L. E. DITTO, Seaton, Ill.

STALLIONS AND JACKS

For sale. Three registered Percheron stallions; two black; one brown; weight 1,800 to 2,000 pounds. All good ones. Two standard and registered bay drivers; 1,100 to 1,200 pounds each. Also three jacks; two large Mammoth; 4 years old, and one black, 3 years old. Will sell or trade for land, any or all of them. Come and see them, or write
CLI SMITH, Cushing, Okla.

4 PERCHERON STALLIONS

All under 32 months old; sound; big flat bone kind. Price from $300 to $700. Write for photos and more description. The largest 32 months, weight 1800. He has won sweepstakes over aged stallions.
J. S. LANGFORD, Craig, Nebr.

FOR SALE OR TRADE.

One dappled grey imported Percheron stallion; 7 years old; weigh 1750, or a good jennet jack that weighs 1100 or more and over 15½ hands. For sale, two jacks coming 3 years old; 14½ and 15½ hands; large boned and will make good jacks. Also one German Coach colt, coming 3 years old; weight 1300 pounds.
ULEM S. GUDE, Hamburg, Iowa.

PERCHERON STALLIONS AND MARES

For Sale. All ages; registered; good ones and lots of quality; weight, 1700 to 2100 pounds. Bred and priced right. Why not buy your next stallion from a breeder and save dealers' profit. Twenty years a breeder.
R. F. D. No. 4
J. C. ROHRS, NAPOLEON, OHIO

PERCHERON STALLIONS

FOR SALE, from weanlings to 4 years old. All of my own breeding, including the prize winners at the Illinois State Fair. Have dams and sire to show. Buy from the breeder and save money.
J. P. DETWEILER, Congerville, Ill.
Between Bloomington and Peoria, on L. E. & W. R. R.

REGISTERED PERCHERON STALLION

For sale. Seven years old; 1900 pounds; dapple grey; a fine individual and a splendid breeder; an excellent disposition. Will sell at a bargain. Am quitting the business.
J. J. WOODS, Harrisonville, Mo.

654—FEEDING MULES—I have 13 head of young mules consisting of yearlings, 2-year-olds and weanlings. I have the weanlings in a lot or corral where they can go in and out of barn at will, with plenty of fresh water and good alfalfa hay, and I keep a box of oats in. I notice they are commencing to eat a few oats. They are about seven months old; just taken from the mares. Is that the proper way to feed young mules? I have nine head of yearlings and twos in another corral feeding the same way. I am new at the business so ask for information. I have one 2-year-old mule that I think will weigh 1,000 pounds. He is extra fine and in good shape, but I notice in the last few days that the point of his sheath seems to be swollen. What is the cause and what should I do for it. I have several 4-year-old mules that measure over 16 hands standard. Is that considered good size for their age or not?—Colorado Subscriber.

REPLY—You seem to be starting off in good shape with your new undertaking, and will say that a little corn added to the ration of the older stock will be relished by them and aid in putting on fat if they are to be sold at the close of the winter feeding, otherwise if growth is desired you are pushing along proper lines. We do not think the slightly swollen sheath need give you any concern. Continue to permit the animal to take exercise and it will perhaps disappear later.

655—OBSTINATE WOUND—I have a hog that has a lump or swelling on its side, that seems to be very hard to cure. The flesh is swollen hard all around the outside and in the center is a kind of a cancerous like sore. Have cut it out two different times, but it gets larger all the time. It is as large as a man's head. Have burned it with blue stone and it doesn't do any good. Have lost five hogs with the same thing. What is it? What is best to do?—Idaho Subscriber.

REPLY—Your description is rather indicative of a malignant new growth but such is not apt to occur in so many as five head of animals as indicated by your letter. It may be after these growths are removed you apply medicine too strong and it keeps the parts irritated. Such will occur if strong caustic agents are used. The proper way to treat such cases is to carefully dissect out all the diseased tissue and use some mild antiseptic occasionally afterwards, and that only when needed. An occasional washing of such wound with a 1 per cent lysol solution is about all that is ordinarily needed.

656—LOCO—Is there any cure or relief for a loco eater?—Kansas Subscriber.

REPLY—No, not if the animal still is given opportunity to graze on the weed.

657—DISCHARGE FROM NOSTRILS—I bought a fine 3-year-old jack in October and he had a discharge from the head like strangles, and especially when he drinks. It has some odor to it. I though at the time it was distemper and have been giving him Spohn's Distemper Cure, but it has not stopped the discharge. Can you tell me the cause and describe remedy?—Kansas Subscriber.

REPLY—Such an animal should be examined by a competent veterinarian for the purpose of determining the exact cause of the discharge. Your animal may have a diseased tooth or it may be a case of chronic nasal catarrh.

658—BLIND STAGGERS—In case a horse has blind or sleepy staggers and the eyesight is injured, is there anything that can be done for its sight or restore sight? The veterinarian said the fever had settled on the optic nerve between brain and eye. Would appreciate any information, as it is a valuable mare.—Arkansas Subscriber.

REPLY—Would have little faith in recovery of defective eyesight induced by disease of this nature.

659—ENLARGED BAG—Please tell me what to do for, and the cause, of

For Sale or Exchange

A large black Percheron stallion; weight between 1,800 and 2,000 pounds. As good a model as I ever saw. A good breeder; plenty of colts to show for themselves. Will either sell or exchange for good jennets. If this suits any one looking for such a horse let me hear from them at once.
J. L. CROCKETT, Piggott, Ark.

3 GOOD PERCHERON STALLIONS.

One black; 2-year-old; extra; 1900 pounds. One dapple grey; 4 years old; weight, 2040 pounds. One black grey; 2 years old; 1895 pounds. F. A. McCABE, Box 2, BLUE MOUND, KANS.

Imported Percheron Stallion

For sale. Black; six years old; weight 1950; sure breeder. Colts to show. **J. E. DREIER, Hesston, Kans.**

Belgians Below Competition



Among them are state fair champions and first prize winners. Will guarantee to sell a better horse for the money than any one in the business. No better or safer guarantee put up by any firm. Reference, any bank in Harpen county. Write

DAVID COOPER & SONS,
Harper Co. Freeport, Kans.

BLUE VALLEY STOCK FARM



Largest Importers and Breeders of High Class Belgian Draft Horses in the West. Importation of Belgian stallions and mares arrived September 7th. Many of our horses were medal-winners at the foreign shows this year; all are sound, acclimated and ready for service. Lowest prices and safest guarantee of any firm in the business.

Also a few extra good Percherons. Write us, always mentioning the American Breeder.

W. H. BAYLESS & CO. Blue Mound, Linn County, Kans.

BELGIAN EMPORIUM OF AMERICA



Largest collection of Belgian draft horses on earth. Also 20 choice Percheron stallions. The fall importation of 100 head, the second importation for 1913 swells the number on hand to 175 stallions, mares and colts. Many prize winners; many descendants of prize winners. All choice animals. We are farmers and stock breeders; twenty-eighth year in the Belgian horse business. Each year adds to our strength, and now we can defy competition in quality, quantity and prices.

Four farms, all adjoining; 7 large barns.
Write for free illustrated catalogue.

H. LEFEBURE & SONS, Fairfax, Linn Co., Ia.
(Eight Miles from Cedar Rapids.)



WE ARE IMPORTERS
of the best blood of Europe in
BELGIAN AND PERCHERON STALLIONS AND MARES

Importation made regularly and a large selection kept on hand in season. Only horses of **high quality** handled. Prices and terms **right.** It will pay you to see our horses before buying. Favorable terms to responsible dealers. Our 1914 calendar is now ready for distribution. Write for full particulars.

W. A. LANG & CO.,
Greeley, Delaware County, Iowa

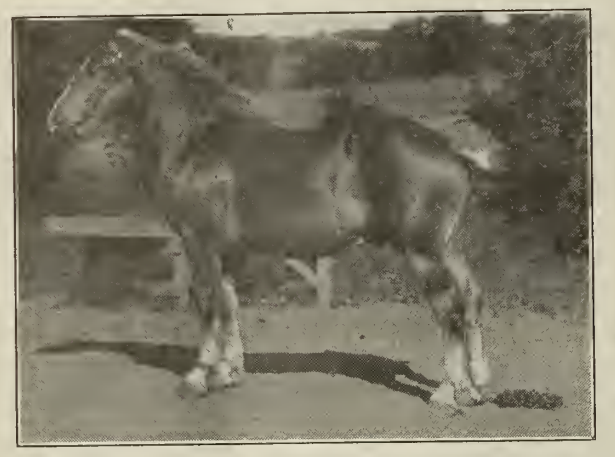
Percheron Belgian Stallions

Young
Imported
Drafty
Stylish
Guaranteed
Satisfactory
Breeders

Geo. W. Souers & Sons

Huntington, Indiana

IRVINEDALE ANNUAL SALE



40 Belgian, Percheron and French Draft Stallions and Mares



ANKENY, IOWA

THURSDAY, FEB. 19

Some Features Which Make This Sale Important

1. A consignment of especially selected imported animals fresh from the old country that will sell in shipping condition —a point in the buyer's favor.
2. One of the largest offerings of high class Belgian mares ever made in an American auction.
3. The champion draft team (tried brood mares) at the Iowa State Fair.
4. The dam of Blue Belle, undefeated as a two-year-old in classes for mare bred by exhibitor, and champion at Minnesota State Fair and the Sioux City "Interstate."
5. Louise, dam of the yearling stallion, Irvinedale Prince, that won from first to fourth at the State Fairs where shown last fall.
6. When an animal is brought in the ring every known defect will be pointed out and it will sell on its merits without by-bid or reserve.
7. A written guarantee that it is a breeder, goes with every stallion over 2 years old.
8. A certificate of registration and transfer of ownership goes with every animal sold.

Send for catalog (mentioning American Breeder). I want you here.

CHAS. IRVINE, Prop. **ANKENY, IOWA**

AUCTIONEERS—Carey M. Jones, Charles Howard and R. M. Howard.

IMPORTED BELGIAN STALLION
for sale. Color bay; age 6; weight 2250; sound and right in every way and a sure foal getter. Lots of colts to show. A boy can handle him. A real drafter; the wide out kind; good quality; size and bone. Reason for selling, want to quit the business. Will sell at a bargain for cash.
FRED EGGIMANN, Annawan, Ill.

CLOSING OUT SALE.
Two imported Belgian stallions, 6 years old; bay; 2000 and 2100 pounds; one imported Percheron stallion, 11 years old; black. One home bred Percheron stallion 2 years old; black-grey. Also some registered fillies. These horses are all sound and priced to sell.
HATTEBERG BROS., R. 4, Paxton, Ill.

--BELGIANS--

A carload of imported and home bred Belgian stallions and mares; all ages. Matured horses weigh from 1800 to 2200; with plenty of bone and quality, at prices to sell.
ED BOLL, JR., Scribner, Neb., Rte. 5.

Closing Out Sale

One imported Belgian stallion. Was a winner three years in succession at the Iowa State Fair, and has colts that are winners. Color brown; has weighed 2200 in show condition; age, 8 years; a sure foal getter. Price, $1,000.
C. E. RANTS, Booneville, Iowa.

REGISTERED BELGIAN STALLIONS.
From one to three years old; from imported sires and dams. Good ones. Also one 6-year-old imported Belgian Stallion, weight 2,000 lbs. A prize winner; sound and good foal getter. Lots of colts to show. Will price them right. No trade.
E. A. SILVERTHORN,
Rossville, Ind. Route 1.

a mare's bag being swollen, it being about four and half months until foaling time. This bag is about as large as it should be about three weeks before foaling time. She has been worked to plow but not extremely hard. When she is turned out of stable and exercised the sack decreases in size. Is this a sign of abortion? If so, how much carbolic acid should be given her?—Kentucky Subscriber.

REPLY—Premature enlargement of the udder often precedes abortion although it is not always a sure sign of that malady. We have known mares that would act in this manner that would carry their foals to full time. We would suggest that you give this mare a teaspoonful of the fluid extract of black haw in her feed twice a day, morning and night, for a few weeks. Permit her to have moderate exercise away from other stock.

660—SCAR FROM WIRE—I have a 3-year-old stallion that got cut on barb wire and has healed up fine. Please tell me what will make the hair grow back.—Mississippi Subscriber.

REPLY—The part denuded of hair is very likely new tissue and you cannot expect hair to grow upon the same. If it is very unsightly the condition can be overcome by having a skilled surgeon dissect out the new formation and by bringing the margins of the skin up closely to cover the point where the scar was. Such an operation is not to be encouraged, however, unless the place is unsightly.

661—RUBBING TAIL—Please tell me what will keep a horse from rubbing the hair from his tail.—Mississippi Subscriber.

REPLY—Much depends upon the cause of the rubbing. If induced by overfeed and lack of exercise, correct the cause; many horses rub the tail from being kept too fat. The parts should be kept clean and free from filth or parasites. An aloetic purge is often a good thing to give so as to effectually clean out the alimentary tract. One ounce in the form of a bolus or drench will ordinarily physic an average sized horse.

662—FISTULOUS SCROTUM—I have a 2-year-old horse that was castrated last May, that swells up and breaks and runs a corruption on both sides, but does not seem to hurt him as he runs and plays. He eats as good as any horse. Would like to have your opinion as to what is the matter with him. Which would be the best time, this winter or wait until spring to have anything done for him?—Oklahoma Subscriber.

REPLY — Something is radically wrong and you should have the animal operated upon and the diseased parts removed, otherwise this condition will very likely continue. Better have him cleaned up some pleasant day and give plenty of time to become healed up before spring.

663—THRUSH—What is a good remedy for frog rot or thrush in a horse's foot?—Nebraska Subscriber.

REPLY—A clean stall with careful daily washing of the affected feet and packing all crevices with calomel pushing it down into the parts with a thin pine stick.

664—DIFFICULT MASTICATION—I have a yearling Percheron filly which about two weeks ago refused to eat either hay or grain for about 24 hours. Thinking perhaps that the fault was with the teeth, I put the speculum on to examine them and found they were in good condition, but discovered that I could not open her mouth more than two inches. The second day she swallowed her grain with much difficulty but did not grind it at all. She tries to eat hay but can't swallow it, only chews it a little and spits it out. She is improving but very slowly.—North Dakota Subscriber.

REPLY—The difficulty may be due to some inflammatory trouble but we think this animal should be examined very closely for tetanus, as the description you give tallies very closely with that disease.

REGISTERED MORGANS.
My Morgans are large; 15 to 16 hands and 1050 to 1300 pounds; have clean, heavy bone and possess all of the style and endurance for which the breed is noted.
Having bought Headlight Morgan to head a selected stud of The Admiral mares, The Admiral is now for sale. He is 15¾ hands high; weight 1250 pounds, and is the greatest all-round horse I know. I have 200 of his get on the place; part of them for sale.
RICHARD SELLMAN, Rochelle, Texas.

STALLIONS FOR SALE.
One native bred bay Shire, 7 years old, weight 1900. One imported bay Shire, 6 years old, weight 1700. One standard bred brown Hambletonian, 13 years old, weight 1200. All sound and sure. Can show colts and furnish certificates. Have had them four years and must sell as their colts are in the way. Prices reasonable. For further particulars, write
PETER PURSEL, Local Stallion Man, McCool Junction, Nebr.

IMPORTED AND AMERICAN BRED BELGIAN MARES AND STALLIONS.
I purchased these stallions and mares in Belgium and imported them myself. I have kept them and acclimated them on my farm. No extra expense upon them. I can sell them cheaper than you can buy them anywhere in America. Come and see for yourself.
WILL H. ADE, KENTLAND, IND.

STALLIONS AND JACKS
For sale or trade. Two imported Belgian stallions; weight 2100 and 2240; sound and right and two jacks coming 3 and 4 years; black with white points; good ones. Also 5 jennets from one to 12 years old; black with white points. Will trade for other stock or good land in good farming country, Iowa preferred. Lay this paper down now and write or come if you want something good.
J. I. WILLIAMS, Winthrop, Iowa.

A FEW STRICTLY GOOD BELGIAN AND PERCHERON
Stallions and Mares for Sale.
Last fall, showing three stallions and one mare and colt, at two state fairs and the "Royal," I won 25 firsts and championship ribbons, 3 seconds, 2 gold medals and 3 silver medals.
Some of these winners, and more of the same sort, are for sale. I'll use what are not sold, for they are all high class and right in every way. Come and see for yourself.
LEW JONES, - Alma, Kans.

BELGIAN STALLION
for sale. Chestnut sorrel; 6 years old; weight 1800 pounds; a pleasure to handle him; has never been overworked as I have used the capsule system. Last year's work showed 85 per cent in foal. Well broke to drive and ride; have had him four years and must dispose of him on account of his fillies. This horse shows a sound state inspection certificate. For further particulars, write to
E. F. BICKMANN, Pender, Nebr.

Auction Sale of Clydesdales and Percherons

Fair Acres Stock Farm, February 9, 1914.

Six Clydesdale stallions; 14 Clydesdale mares and fillies; two Percheron mares; 1 registered black jack coming two years old. Mares are all bred and showing heavy in foal. Write for catalogue.

JOHN H. CHAMBERS, Edindurg, Ind.

SIZER'S SHIRES

Stallions and Mares for Sale.
All ages—the Get of
TATTON CHIEF 8605 (20087)
The sire of more prize winners than any other Shire horse in America.

..N. and O.B. Sizer, Fisher, Champaign County, Ill.

RECORDED SHIRE STALLION FOR SALE.
Seven years old; weighing over a ton; very gentle, proven an 80 per cent oal getter. Must sell on account of his colts. Price, $750 if taken soon. Also stud colt; fillies of all ages and mares in foal. Must sell for cash or bankable ote. Will not consider a trade at all.
. M. BOYER & SONS, FARMINGTON, IOWA.

665—LAME MARE—I would like our judgment as to the lameness of his mare. She got lame gradually; ad a little thrush; has pain just above ue hip joint and back of the same oint. She is very nervous; she bears ut little weight on the leg. I think is either a strain or rheumatism. I ould like treatment for same.—Ohio ubscriber.

REPLY—You should have this mare xamined personally by a good practicioner so that a certain diagnosis the point of injury can be located efore you undertake giving treatent.

666—LAME MARES—I built a new arn two years ago with a good cement floor all over it, and for the orses I put some oak planks under em, but I have two mares with sore ot on the front, and to my surprise e thrush. They are on dry plank ith a leaning of two inches and no ater gets under their front feet. lease give me your advice.—Minneta Subscriber.

REPLY—No animal should be kept o constantly on a board floor and hile planks are necessary in many ses to insure a good floor, yet they ten cause such a dry condition of e feet as to cause lameness. Thrush not often a cause of lameness unss a very severe case. If you find our mares' feet hard and brittle, soak em in water or mud until softened. shod have the shoer go over them refully and search for contracted els or corns. After the feet have en washed clean, crowd the crevices ll of calomel, pushing it down well ith a thin fine stick. Repeat this ily and the thrush will gradually sappear.

667—UNTHRIFTY COLTS—I got four lts this last spring and two of them d not do very well. They all sucked eir mothers about five months. I ve them some oats when they were cking and kept it up until now but o of them did not care for their ed and we put a little bran in it and ey did eat it for a little while, and ain did not care for it. We cooked oats r them and put bran in and they ate it again for a while and did not care for it. One began to crib. I put sheep skin all around his box and bin, and nails but with no success. When he is out he bites on everything like a real cribber. We put a leather strap around his neck good and tight to stop him, but with no success. What can I do for these colts? I feed them three times a day with the other horses and I give good prairie hay.—Minnesota Subscriber.

REPLY—We are interested in knowing if your colts are well bred, as this has an influence on growth and development. If they are free from worms and are not inclined to thrive on good clean, heavy oats with a moderate amount of old process linseed meal added, and all the good, clean hay they will eat, we would be at a loss to know what to suggest. Try giving a teaspoonful of Fowler's solution in their feed two or three times a day. If a strap tightly buckled around the throat of a colt won't stop him from cribbing, we know of nothing that will.

668—LAME JACK—I have a 2-year-old jack that has been lame in one front leg for about 12 months but could walk very well until about one month ago. When he runs he will hold up his foot and will not allow his foot to touch the ground and will not bear but little weight on the foot when walking. His shoulder seems to shrink and the skin seems to be tight like the skin was grown to the bone. I stuck the point of a knife in the shoulder a few days ago and bathed it in liniment and it seems some better. Please give a remedy.—Kentucky Subscriber.

REPLY—Your injury points to shoulder lameness. Apply a cerate of cantharides blister over the point of the shoulder and allow it to extend up to include those parts that are shrunken. First clip the hair closely from the part to be blistered and apply the ointment with considerable friction of the hand for several minutes. After 24 hours wash the parts off with warm water and soap and when dry apply a little lard occasionally to keep the skin soft.

669—MARE FAILS TO BREED—A neighbor of mine has a 5-year-old mare that foaled a colt in 1912. The colt was dead when foaled. She has not gotten with foal since. When she comes in heat there is a watery discharge from the vulva. The discharge is worse in winter. The muscles of the vulva are paralyzed and causes air to pass through like she was ruptured. The vulva has never been torn in any way. I examined her womb with a speculum and it seems to be in good condition. She is hearty and in good heaith. What treatment will be required to put this mare in breeding condition?—Illinois Subscriber.

REPLY—Cases of this kind need to be personally examined by a competent veterinarian or one who as a breeder has given special study to this class of cases before anything in the way of treatment can be prescribed with any idea of doing good. A careful and certain diagnosis is first in order. Have your neighbor understand that this is the preliminary step to intelligent treatment.

670—LEGS SWELL—I have a brood mare 9 years old that her legs swell up every time she gets in foai. They begin to swell about four months before foaling time and she gets so stiff she can't get up when she lies down. Is always fat and looks well. Can you tell me any remedy for it, and what is the cause of the swelling.—North Dakota Subscriber.

REPLY—This is not an unusual complaint in heavy mares, heavy in foal. The difficulty usually comes from a defective circulation induced by the presence of the foetus. An opportunity to take regular daily exercise with such feed as will maintain moderate flesh is the best line to follow.

671—CONTINUOUS ESTRUM—I have a pair of 1,200 pound mules, Kentucky raised. One of these mules gives milk like a cow. Her teats are full of milk all the time; the milk drips from her teats all the time we are working her. This mule is in heat one-half of the time. Would like for you to tell me what to do for this mule to stop the flow of milk. The milk spatters all over the harness when using her. I have been told that this mule would bring a colt if she was bred. Is it possible for a mule to bring a colt? Please let me hear from you on the subject.—Texas Subscriber.

REPLY—It is quite likely that the mule in question is affected with diseased ovaries and that this condition is in this case responsible for arousing the activity of the mammary gland. We believe the proper thing to do would be to have this mule spayed. A competent veterinarian having the opportunity of making a manual examination should be able to determine the state of the ovaries and if found diseased should proceed to operate. By taking away the influence in this direction you will be able to gradually dry up the milk. While cases have been recorded of female mules conceiving, such should not be expected in the case in question. If the animal was a mare the tendencies would be more towards sterility.

672—SOME FORM OF TUMOR—What is the matter with my colt? He has a knot on his nostril and has had it there since birth. He is four months old and the knot keeps on growing. It is soft and appears that it would peel off like an onion. Would you advise cutting it out. There is no veterinarian in this part, so please give me the required advice.—New Mexico Subscriber.

REPLY—We would judge from your letter that some form of tumor is developing at the point mentioned, and that a surgical operation will be necessary to remove it. In the absence of a veterinarian perhaps your physician could give you good advice as to just how to proceed to remove it.

673—A THIN MARE—I have a mare 9 years old that weighs about 1,400 that is not doing well. She has had three colts in the last three years and is bred again this year, and from all appearances is with foal. She has had a slight discharge from her vagina for some time and now it is of a whitish color and at times there is quite a lot thrown off at a time. The mare seems to be a little "hide bound." Her hair does not look good; she is rather thin but has had a good appetite. When I work her she seems to be weak and has no wind. I am wintering her on good alfalfa hay and let her run out on grass during the day. (Will say that I do not like alfalfa for feeding horses.) Please tell me what to do for this mare.—Washington Subscriber.

Give this mare a little special attention by feeding her twice a day, preferably oats. Continue to let her run out and have plenty of exercise. Build her constitution up good and strong before you attempt to work her. Examine her teeth and see that they match all around. A little time and good feed should put this mare in a good physical condition. Pay no attention to the discharge so long as she is with foal. Do not interfere with her in that respect.

674—LOST REGISTRY CERTIFICATE—In 1910 I traded a French draft stallion to the Maywood Stock Farm at Indianapolis, Ind., for another French draft stallion. I gave them the pedigree with the horse I traded them and they were to furnish me the pedigree with the horse they traded me. They claimed they had only had the horse in the barn a day or two, and had not yet got the pedigree, but would mail it to me. I told them to register it. They claim they sent it, but not registered, and it never reached me. Now under the late Kansas laws I am in a close place. The name of the horse is "Marshal" and it is docked.

THREE STALLIONS
For sale or exchange, on account of their fillies only. One Shire, wide and low; imported German Coach and a saddle stallion; all 12 years old; registered; sound and show horses; good breeders; colts to show. Have been in our barn seven seasons, saddle horse, four, must be changed. We are pricing them very low, or will exchange the draft for Shire, Percheron or Belgian, if good enough. Don't wait. We mean business.
J. A. EVERMEYER & SON, Troy, Lincoln Co., Mo.

CLYDESDALE STALLION
For sale. Six years old; weight 1850 pounds. Good breeder. Fillies in the way.
Five black jacks for sale; the big kind; from 15½ to 16 hands; black with white points; from one year old to six.
Also 5 spring bull calves (Herefords). All in good condition.
J. R. BROOKS, Cairo, Mo.

CLYDESDALE HORSES
Stallions and mares of all ages for sale.
Also Shorthorn Cattle.
W. A. DeMerritt
Route 2, Plainfield, Ill.

4 Shire Stallions
For sale—One 3-year-old; one yearling and two last spring colts. These are from imported stock, some of them International prize winners, of which Holker Colin 8528 (21525) was also first at the Royal in 1906. Come and see them or write me.
CHAS. CAPPEL, Logansport, Ind.

7 SHIRE AND PERCHERON STALLIONS.
Sire and dam of Shires, imported by Trumans' Pioneer Stud Farm; dam bred by Thomas Gee of the famous Wrydelands Stud Farm of Thorney, England. Prices $250 to $650. Will meet train at Wakefield if notified in time.
James Auld, Wakefield, Clay Co., Kans. Route 1.

Suffolk Punch Horses
We have imported stallions and mares and also home bred stallions from weanlings to two year olds. All for sale at very low prices, as we are overstocked. Correspondence solicited.
G. A. Hamilton & Son, Loveland, Colo.

CLYDESDALE STALLIONS
For Sale. One 7 years old; two coming three years old. Will exchange one for one of the same breed, his equal. All three are big, heavy boned and sound horses. **J. G. THOMPSON & Sons, Steubenville, O. R. 1, Box 109.**

REGISTERED SHIRE STALLION
For sale or trade. Jupiter 11230; 4 years old; weight 1900 pounds. Bred 60 per cent last year.
DR. G. C. DUNHAM, Kempton, Ind.

CLYDESDALES.
Three stallions and eight mares for sale at a bargain, if taken soon.
JAMES SPEAR, STANWOOD, IA.

JACKS AND MULES.



Eighteen jack and mule farms under one management, where can be seen 380 head of fine large jacks, pennets and mules, 14 to 17 hands high. Good ones. Stock guaranteed.

Write for prices today.
KREKLER'S JACK FARM,
WEST ELKTON, O.
Branch Barns, Clinton, Indiana.

I MUST SELL MY HERD JACK, Sheridan 4828. Jennets by him in his way. Sound and serves well on mares and jennets; 8 years old; weight 1125 pounds. Come and see his colts. Also for sale 8 months to 3-year-old jacks and a few jennets.

Big boned Poland China hogs; both sexes for sale. Come and see all my stock and make me an offer.
Henry Obermann, Friestatt, Lawrence County, Mo.

KENTUCKY JACK AND PERCHERON FARMS.



Two hundred head of big bone Kentucky, Mammoth jacks, saddle stallions, mares, colts and fillies. The jacks and saddlers you want are here. 2500 bushels of blue grass seed. Our prices and terms will suit you. Write us your wants or visit our farms.
COOK & BROWN, Proprietors,
LEXINGTON, KY.

CLOSING OUT MY JACKS.
To quit the business on account of my age and other business. One 8 years old, good worker on mares and jennets; three, 3 years old, good workers on mares; all black with white points; big bone and feet; heads and ears; 15 to 15¾ standard. If you mean business, write for particulars.
G. B. WEAVER, Harrisonville, Mo., R. 1
(Anyone can get a half carload of jacks in this neighborhood.)

FINE MAMMOTH JACKS
For sale. Large heavy bone jacks; black, with white points; 4 and 5 years old; broke to serve mares and jennets; 14½ and 15.3 hands high, with lots of life, style and finish; fine breeders; colts to show. Everything guaranteed as represented. Prices right.
EDD AHLEMEYER,
Poland, Clay County, Ind.

REGISTERED JACK
For sale. Black, with white points; weight, 1100 pounds; stands better than 15 hands standard; 6 years old. Good, clean jack; extra good head, ears and feet. Took first prize at state fair in one year and under two class. Quick server and good breeder. Price right if taken soon. Address
E. C. WADE, Griggsville, Pike Co., Ill.

JACKS AND STALLIONS
For Sale. Good Iowa bred jacks, also an aged, but good, imported black Percheron stallion. Good breeders and priced low. A bargain. Barn in town.
A. C. BRIGGS, MISSOURI VALLEY, Ia.

They claimed he was imported. I have written to the company several times but they claim the pedigree was lost. Can you advise me what is best to do? —Kansas Subscriber.

REPLY—Write to the Maywood Stock Farm and get the record numbers of the stallion, Marshal. Write to C. E. Stubbs, secretary of the French Draft Association at Fairfield, Iowa, and ask him how to proceed to get a duplicate. Also ask the Maywood Stock Farm who imported this horse, who they purchased it from, as it might be necessary to identify the stallion in securing a duplicate.

675—FEEDING STALLIONS SILAGE—Will it injure a stallion or jack to feed them on silage during the winter months, say until about the middle of February? Will it keep them from being sure breeders next season? They claim it will keep a bull from being sure, and I got to wondering about feeding it to horses and jacks. Have been breeding my stock some but not heavy.—Missouri Subscribers.

REPLY—It might not be injurious to feed your stallion silage, but as a rule we would advise the owners of good high class stallions or jacks not to use any silage till its effects are better known. Good substantial horse feed that you already know is absolutely safe will be the cheapest in the long run. Oats and bran, equal parts by measurement, with prairie hay, or oats with alfalfa and prairie hay, equal parts. Bright oats straw can be used with alfalfa as roughage or whatever you may have of that kind. Be sure that all your feed is free from mold and dust and the roughage bright.

676—TRAINING A JACK COLT—I have a jack colt six months old that I am now weaning. Would it be best for me to put him with a filly colt now or would it be all right to wait until spring? I haven't any fillies but if you think best will try to get one. There has been quite a lot of sickness among horses here for the last few weeks.—Missouri Subscriber.

REPLY—You will find it profitable to purchase a filly colt of a good disposition, a little younger than your jack; one that he can tease without being seriously kicked. Let them play together. This establishes confidence and a desire to be with mares. Some breeders have good results by turning their jack colts together until they are about a year old, but it is safer to have a filly colt with them early in life. For best results do not allow this jack to see or smell a jennet, mule or another jack. Feed them liberally. A self-feeder with plenty of oats in it, and alfalfa hay or good clover. If you have not the alfalfa or clover by all means have a good supply of carrots and feed liberally.

677—SMALL MARES FOR MULES—If mares weighing from 800 to 1,100 pounds were bred to a good jack, do you think the mules could be successfully sold, and to what market? In your opinion, are mares of this size too small to raise mules from?—Idaho Subscriber.

REPLY—By using a good jack on these mares you will find it very profitable. The results can be such as cotton mules and miners, and you might produce a few sugar mules occasionally. You cannot expect to produce many good, big draft mules from mares of this size.

678—POITOU JACKS—To settle a dispute, what is a Poitou jack?—Idaho Subscriber.

REPLY—There is a breed of jacks in the Poitiers District of France for which there is a live stock registry. These animals are about 14½ hands high, heavy of bone and body, and they sire the largest mules as a class in the world. The jacks usually have long hair. They are of all colors, but usually blacks, bays and browns.

On February 25

40 Good, Big, Rugged, Heavy Boned Jacks and Jennets

Will Be Sold in Our

Third Annual Auction at Sterling, Kansas



Pharoah, Grand Champion at Tennessee State Fair in 1910.

25 Jacks 2 years to coming 6 years old; 15 Good, Big Broody Jennets, coming 3 to coming 6 years.

Everything registered and all black with white points.

We are selling the get of the greatest jacks in the United States, including the Grand Champion, Pharoah 2491.

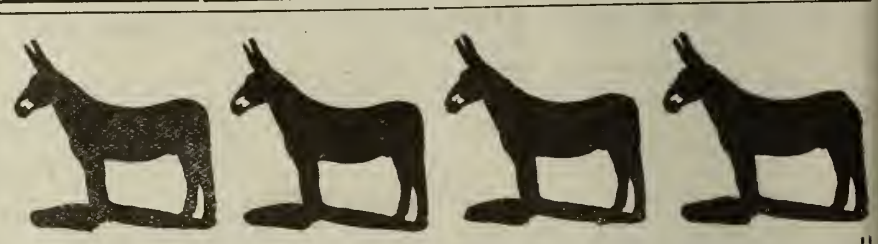
We won more premiums on Jacks, Jennets and Mules at the last Kansas State Fair than all other exhibitors combined.

Be sure to attend. Sale in our large pavilion, rain or shine.

Write either one of us for catalog, mentioning American Breeder.

H. T. HINEMAN & SONS, Dighton, Kas., or D. J. HUTCHINS, Sterling, Kas.

Auctioneers: R. L. Harriman, Bunceton, Mo.; E. E. Potter, Sterling, Kas.; John D. Snyder, Hutchinson, and J. W. Clouston, Ness City.



JACK AND JENNET AUCTION

Concordia, Kas., Feb. 28

30 - JACKS and JENNETS - 30

This stock ranges from 2 to 8 years old, and from 14½ to 16½ hands high. It is the kind of big, rugged stock used in producing the draft mules for which Kansas is becoming famous.

Everything will be registered or eligible to registry, and will be guaranteed as represented. Send to me for catalog at once, addressing

C. McNULTY

R. L. HARRIMAN, Auctioneer **Morrowville, Kansas**



GOOD JACK FOR SALE.
Weighs about 1,000 pounds, black with mealy points; 15 hands standard; heavy bone and blocky; 6 years old. Colts to show. Price, $500.
DOOLIN BROS., HARRIS, KANS.

JACKS and PERCHERONS FOR SALE
Two black jacks, 4 and 5 years old, also Percheron horses. Priced to sell.
J. E. SMITH, GRANGER, MO.



JACKS AND JENNETS.

Thirty-five head of Mammoth jacks and jennets for private sale. Jacks in age from 1 to 5 years old; in size up to 16 hands. These jacks are all good ones, black with white points. I have one of the best herds of jennets in Kentucky. I raise all of my own stock and will sell them worth the money. Write for prices today, or better, come and see them.

U. G. SAUNDERS, Flemingsburg, Ky.

MULES AND JACKS FOR SALE

We have on hands 86 head of coming three year old mules—nearly all mare mules. They are from good jacks and grade draft mares. Have lots of bone, width and quality. Have been on feed all summer and are fat. We also have 16 head of jacks from colts to 8 years old; all black with white points. Will sell all or any of these mules or jacks at reasonable prices. **SCOTT & ABNEY, Virden, Macoupin County, Ill.**

JACKS



Kentucky Bluegrass bred and raised; the foundation of all other states. Old Honesty has the blood lines of all who have made success and fame in the jack business. Write your wants or come to my barn at Greendale. Electric line right at door. Stop 10.

S. C. NUNNELLEY,
Lexington, Ky. Route 6.

BLUE GRASS JACK FARM.

Five jacks, 4 jennets; Kentucky bred; Mammoth; black with light points; age 1 to 8 years; all raised on farm except herd jack. All registered, Blackwood Jr. 4260 (herd jack) bred by Major Harris, Richmond, Ky.; 15¾ hands standard measure; good bone, head and ears; good individual; sure and well broke. Colts to show. Am selling on account of age and help.

G. S. LAWSON,
Ravenwood, Nodaway Co., Mo. Route 2.

JACKS AND JENNETS

I make a specialty of high classed jacks. Come to one of the oldest jack farms in the state and see what Missouri really can produce. If disappointed will pay your expenses. Every jack guaranteed as represented. This yard is to parties wanting the good kind.

G. M. SCOTT, REA, MO.

JACKS AND STALLIONS

For sale. Registered jacks: all black with white points; from 15 to 15¾ hands; from 3 to 6 years old; well broke and as good as grow.

Percherons from 2 to 8; the big, good kind, weighing from 1700 to 2100 pounds; all guaranteed as represented.

J. E. PARK, Owner, CAMERON, MO.

Jacks and Jennets

Nine jacks for sale, worth the money. These are as good as grow. Five of them herd headers. Also Jennets for sale. Visit our barns and see for yourself.

J. R. REYNOLDS & SON,
GUTHRIE, Callaway County, MO.

TEN JACKS

For sale; 15 to 16 hands standard; 3 to 5 years old; big heads and ears; lots of bone and foot. Write for photo of best jack in Missouri.

BEN M. GREEN, Cape Girardeau, Mo.



300 HEAD of Colorado raised Jacks, Jennets, Mules and Brood Mares. All guaranteed. Prices right. **Lewis Swink & Son, Rocky Ford, Otero County, Colorado.**

JACKS FOR SALE—Ten jacks from 1 to 8 years old; from 15 to 16½ hands high. If I can't show you as good stock as there is in the United States, I will pay your railroad fare. Come and see me.

W. L. GRAHAM, MACKVILLE KY.

FIELD NOTES

PUBLIC SALE DATES.

Percherons.

Jan. 27—Lee Bros., Harveyville, Kas. Sale at Manhattan.
Jan. 29—Snyder & Stalons, Oskaloosa, Kas.
Jan. 30—Chas. A. Randolph, Fowler, Ind.
Feb. 9—John H. Chambers, Edinburg, Ind.
Feb. 12—John H. Decker, Piper City, Ill.
Feb. 18—W. S. Boles & Sons, Enid, Okla.
Feb. 19—Chas. Irvine, Ankeny, Ia.
Feb. 25—J. C. Robinson, Towanda, Kas.
Mar. 19-20—North & Robinson, Grand Island, Neb.

Belgians.

Feb. 18—Gust Weidke, Elmore, Minn.
Feb. 19—Chas. Irvine, Aukeny, Ia.
Mar. 19-20—North & Robinson, Grand Island, Neb.

Shires.

Mar. 19-20—North & Robinson, Grand Island, Neb.

Clydesdales.

Feb. 9—John H. Chambers, Edinburg, Ind.

Percherons and Other Draft Breeds.

Jan. 27 to 30, inc.—Bloomington, Ill., C. W. Hurt, Mgr., Arrowsmith, Ill.

Saddle Horses.

Feb. 5—Wallace Estill, Estill, Mo.

Jacks and Jennets.

Jan. 29—I. N. Green, Kiowa, Kas.
Feb. 10—W. F. Schade, Jackson, Mo.
Feb. 21—Marshall County Jack & Jennet Breeders' Association, Lewisburg, Tenn.
Feb. 24—H. T. Hineman & Sons, Dighton, Kas., and D. J. Hutchins, Sterling, Kas. Sale at Sterling.
Feb. 28—C. McNulty, Morrowville, Kas. Sale at Concordia, Kas.
Mar. 9—G. C. Roan, LaPlata, Mo.

Polled Durham Cattle.

Feb. 13—Peter Anderson, Piper City, Ill.

Chester White Hogs.

Feb. 10—B. M. Boyer & Sons, Farmington, Ia.

Chas. Irvine's public sale of Belgians and Percherons on February 20 will be one of the best opportunities of the year to buy strictly good draft animals of these breeds, both imported and home bred. In the home bred section of the offering the animals are not only high class, but they represent the blood of the prize winners. Mr. Irvine has been showing the past few years. The imported animals have been selected largely with a view of getting exclusively good breeding, and as they will not have had time to regain any of the flesh lost in shipment, many of them will more than likely sell below their worth. It is the place to buy and we ask every interested reader to write Mr. Irvine for a catalogue, as per advertisement, and mention the American Breeder.

C. F. Jones of Rippey, Iowa, is a typical representative of the best farmers of his great state who are devoting their attention to the production of strictly high class draft horses. Men who buy of Mr. Jones can rest assured that they are buying horses handled along lines which any good farmers can follow. Mr. Jones shows his Percherons in the strongest of competition and the standards by which he measures them are the highest. We recommend the special announcement in the current issue to the attention of every reader.

W. S. Boles & Sons of Enid, Okla., are doing more than their full share in introducing the better draft blood to the great Southwest. No firm of breeders could do a greater service to their state and adjoining states. Upon February 18 this firm will follow up its good work of a season's successful exhibit and private sale business, and sell at auction a very desirable lot of stallions and mares. Every buyer and booster of Percherons in the territory of Messrs. Boles should arrange to be at this sale. Write at once for a catalogue, mentioning the American Breeder.

Lee Bros. of Harveyville, Kans., publish in this issue their last call for their big public sale of Percherons at Manhattan, Kans., January 27. The advertisement calls attention to the unusual number of prize winning animals included in the offering. We trust that every reader has by this time secured a catalogue, if not, please do so. If necessary, phone or wire Lee Bros. in order to have the catalogue on hands four or five days before the sale, and always mention the American Breeder in making inquiry.

Snyder & Stalons of Oskaloosa, Kas., make a dispersion sale of their Percherons January 29. The fact that this is a dispersion sale means that all reserved stock will go. The Snyder & Stalon's stud of Percherons is very strong in the blood of J. C. Robison's famous champion stallion, Casino. Those who have not secured a catalogue should apply at once, and mention the American Breeder.

Hutchins & Hineman's jack and jennet sale at Sterling, Kas., has come to be one of Kansas' most important annual live stock events. This year the sale will be held Tuesday, February 24. The offering will be exceptionally strong—the kind that is filling Kansas with prize winning and high selling mules. The announcement in this issue tells something of the offering. For catalog or other particulars address H. T. Hineman & Sons, Dighton, Kas., or D. J. Hutchins, Sterling, Kas., and always mention the American Breeder.

Wallace Estill sells saddlers at auction on his farm adjoining Estill, Mo., February 5. The offering is high class, the blood of Bourbon King being strongly represented through Carmen King, said to be the greatest three-year-old of the past season's shows. Carmen King, and many other good ones will sell.

Col. R. L. Harriman, Bunceton, Mo., is the leading horse and jack stock auctioneer of this country. He is booked now for more sales of this class, in more states than any other auctioneer. His work as a live stock auctioneer (successful in every line) was preceded by many years as a practical and successful horseman, and for over 30 years he has been (and still is) actively and constantly interested in live stock on its own account. Get him for your sale and you get real service.

John H. Chambers, Edinburg, Ind., will hold an auction sale of Clydesdales and Percherons at his farm on February 9, and will be glad to send a catalogue of his stock to any one in the market. Look up his ad.

C. E. Hodgden of Galesburg, Kans., is offering his registered Percheron stallion for sale in this issue at $350.



HEADQUARTERS FOR JACK STOCK

LIMESTONE VALLEY STOCK FARM.

The best trade of North America has for years supplied itself largely with Jacks and Jennets from our herd. The World's Greatest Show Yard Winnings and Public Sales are a part of our record. The same honest values always open to private buyers; the Square Deal for all.

L. M. Monsees & Sons, props., Smithton, Mo.



Missouri Registered Mammoth Jacks and Jennets

FOR SALE AT ALL TIMES.

As fine a bunch as can be found on one farm. Guaranteed as represented. Prices right. Come and see them.

J. T. WATSON,
New London, Ralls County, Mo.

HOME OF THE GIANTS.
100—JACKS AND JENNETS—100

"Our motto is from good to as good as grow." Some real herd jacks. Our jacks are all Mammoth and are the big, thick, big boned; big footed kind. Raised mostly by ourselves and our neighbors. Every one guaranteed as represented.

BRADLEY BROS., Warrensburg, Mo.
65 miles east of K. C. on Main Line Missouri Pacific.



5th Annual Public Sale

OF 25 HEAD OF HIGH CLASS REGISTERED BLACK JACKS AND JENNETS.

JACKSON, MO., TUESDAY, FEBRUARY 10, 1914.



Every animal guaranteed to be as represented. Nothing priced or sold privately after catalogued. If interested, **write for catalogue and come to the sale.** You will not be disappointed but highly pleased with the offerings. Catalogues will be ready to mail February 1, 1914.

W. F. SCHADE, Jackson, Cape Girardeau Co., Mo.

Jack Sale - February 21st

The jack breeders of Marshall County, Tennessee, offer the greatest collection of 55 head of jacks ever assembled in Tennessee. Jacks from 12 months to 8 years old; great breeders. Our aged jacks are the best we produce and our last October sale of 80 head was one of the cleanest and fairest sales ever held in America. One of the greatest yearling jacks that ever lived, in this sale.

Write for information and catalogue.

J. J. MURRAY, Sec'y, LEWISBURG, TENN.

R. L. Harriman, Auctioneer.

1 Stallion and 2 Jacks For Sale

The stallion is a registered Percheron, 2000 pounds, in good flesh; black, with star. The jacks are both black with white points; 14½ hands and 15¾ hands. All three animals are extra good. Address—

E. A. JACKSON, Monroe City, Mo.

Six Jacks

For Sale. One extra good, year old past. Come and see this jack and if you don't find him a great big, good one, I will pay your car fare.

T. E. COLLINS & SON,
BELLEVLILE, KANSAS.

I HAVE THREE JACKS

and need only one. They are strictly good and O. K., and you can have your choice. I'll have a mighty good jack left after two have been picked out. Come and See. **LEW JONES, Alma, Wabaunsee County, Kans.**

THREE JACKS FOR SALE.

Black with light points; old enough for service. Six young ones in the barn.

J. T. HEWITT,
MENDON, ILLINOIS.

TEN GOOD BREEDING JACKS.

Also imported Percheron and Belgian stallions; some weigh 2160 pounds. Stock for sale on long time payments. 1, 2 or 3 years at 6 per cent.

R. I. LITTLE,
Fairfax, Iowa. Route 2.

THREE JACKS FOR SALE—From 3 to 5 years old; about 15¼ hands high; large, heavy bone and registered. All black with white points. Price reasonable if sold soon. Address **S. A. FARNSWORTH, BLAIRSTOWN, MO.**

8--MAMMOTH JACKS--8

For Sale—from 3 to 5 years old; 14¾ to 16¼ hands standard measure; good breeding; broke right. Also a few jennets. One black imported 7-year-old Percheron stallion. Priced to sell. Stock in town.

L. W. HOYT,
BARRY, Pike County, ILLINOIS.

BREEZY POINT STOCK FARM.

For sale, 9 fine Mammoth jacks coming 3 to 8 years old. Mostly black; very heavy boned; 15 to 17 hands high standard when matured. Also 14 jennets. I have raised jacks for 35 years. I also have two registered French draft stallions; foaled 1899 and 1903. Prices right. Must sell.
J. M. OUTHOUSE, Patoka, Marion County, Ill.

JACKS.



20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.
Phil Walker, Moline, Elk County, Kas.

KENTUCKY JACK FARM
Established in 1884.

A fine lot of black Mammoth Kentucky jacks. Big bone and plenty of weight. Will sell at special prices in order to make room for young stock. We sell more jacks to the Western trade than any breeder in Kentucky. Write for prices or come and see me. Guarantee to please our customers.
Joe E. Wright, Junction City, Ky.

JACKS AND STALLIONS FOR SALE.

One imported Shire, coming 8 years, 1 pacer, gentle and broke; 1 three year old jack, first at Illinois State Fair last fall, 1 jack coming four and 1 five. All five for $3,000 if taken before February 15—a bargain. All sound and breeders with colts to show.
Julius Lebantschnig, New Douglas, Ill.

22 TENNESSEE JACKS



Fine large; all ages. Also 12 jennets in foal.

Also fine saddle stallions. Prices right. Ask for catalog.

S. W. JETTON & CO.,
Murfreesboro, Tenn.

SPANISH JACKS for sale. Extra fine. Some of the same blood has sold for $4,000. Good breeders. We pay your railroad fare when you buy from us. If you want a fine jack cheap, address F. T. ROGERS, Mgr., MURRAY, KY., Route 3. This ad will not appear again.

JACKS FOR SALE.

Seven first class jacks; ages one to six. Bred right; raised right. Priced to sell. Colts to show. Mares in foal for those of proper age. Also some good jennets; ages one to seven.
L. W. Garriott, Anstin, Scott Co., Ind.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address

J. C. HUCKSTEP,
Eolia, Pike County, Mo.

BLACK JACK, MEALY POINTS.

For sale; 15 hands high with good bone and body; 7 years old. A good breeder and quick server. Am quitting the business, reason for selling. Price $400. **E. J. Munter, Vandalia, Fayette County, Ill. Rte. 3.**

FIVE MISSOURI JACKS

for sale, one to five years old. Prices right. Address,
FRANK GIBBS, Bowling Green, Mo.



Registered big boned Black Jacks and Jennets. Fine individuals; best breeding; priced right. **J. H. SMITH, KINGFISHER, OKLA.**

THE OLD RICHMOND JACK FARM

I make a specialty of breeding big registered jacks, with lots of bone; substance and finish. These jacks are raised right and all good servers. I also have at all times imported and American bred Percheron stallions. Prices right. Terms to suit.
W. H. SKIBINSKI, Richview, Ill.

FOR SALE OR TRADE

Two draft mares about 16 and 17 hands; in foal to jack. Would trade for Percheron stud, or jack.
HUGHES HORSES, Sherman, Ill.

TWO REGISTERED STALLIONS

for sale. The Percheron stallion, Corbon (51151), is a dark grey; 16¾ hands high; weighs 1900; is a sure breeder; colts to show.

Also a Standard bred trotting stallion, Ralph Forest, 56816; will be 3 years old May 2d; weighs 1250 pounds. Not broke to harness. He served 4 mares last season; 3 are in foal; has a fine disposition and size enough for any work.

R. N. MONTGOMERY, Prop.,
Prairie Valley Stock Farm,
Rich Hill, Mo. Route 5.

CLOSING OUT
AS I HAVE OTHER BUSINESS.

One registered Belgian stallion, 12 years old; has weighed over 2,000.

One registered saddle stallion; weight 1,260.

One 15-hand jack; extra heavy bone and feet and ears; with plenty of length and width. The jack is 12 years old and has never been crowded; is the surest jack I ever handled; good worker any kind of weather on mares; will work on jennets with mare for teaser.

Also one yearling jack, coming two, and three jennets; two jennets eight years old; one has raised four jacks, the other, three jacks and one jennet; the other jennet is three years old; one of these jennets will foal early, the other due in fall. All black with white points.

The above stock are all good breeders and sure. No trades.
O. T. KARR, Quitman, Mo.

BARGAINS FOR SALE.

Three stallions; two jacks and our big feed and sales barn, including our breeding barn, stock pens, sheds and wagon yard; all included covers two acres of land, 200 feet from depot; 50 feet from railway loading pens. Our breeding stock as follows, to-wit:

One German Coach horse, imported, weight 1,400; two Denmark saddle horses, Rex L. 2229, sired by Rex McDonald; Captain Denmark 3199, sired by King D. 1527. Two black Tennessee jacks, 15 hands, 4 and 9 years old; heavy bone; quick to serve and sure breeders. Right in every way. A paying business. Breed 350 to 400 mares each year; books and colts to show. Will sell all or will sell stock and lease barn and property to suit purchaser. Stock free from blemish; safe and sound, and sure breeders. Priced to sell. We mean business.

SHOWMAN & McCLAREN,
Doniphan, Ripley County, Mo.

High Class Saddlers
AT AUCTION FEBRUARY 5

THE FEATURE OF THIS SALE WILL BE
THE BLOOD OF BOURBON KING
THROUGH HIS FAMOUS SON
CARMEN KING
The Leading Three-Year Old of the United States in the Shows of 1913

Carmen King will, himself, be sold along with our offering of 20 Registered Animals and 5 High Grade Mares, proven producers of Saddlers and Combination Horses.

Look out for colts by The Courier and females in foal to Carmen King. SEND FOR CATALOG.

Wallace Estill, Prop., Estill, Missouri
R. L. Harriman, Bunceton, Mo., Auctioneer.

WANTED — STALLION ON SHARES.

I am in position to take any reasonable good draft stallion on shares for next season, with a view of buying.
P. W. ANDERSON, Madison, Minn.

GOING TO QUIT BUSINESS.

Four big stallions and jacks. One imp. Black Percheron; 7 years old; extra heavy bone; straight legs; best of feet; weight 1900. Tried breeder; colts to show. One grade black Percheron.

Two big registered black Mammoth jacks with white points; 15½ hands high, standard; extra large head and ear; heavy bone; straight legs; big feet; good workers on mares or jennets. Plenty of colts to show.
R. H. BAGLEY, Zenith, Stafford County, Kans. (On Kinsley branch Santa Fe, 33 miles west of Hutchinson, Kans.)

FOR SALE OR TRADE

for pure bred Percheron mare, my Mammoth jack; black with white mealy points; registered; heart girth, 68 inches; flank, 70 inches; above knee, 15 inches; below, 9½; above hock, 16; below, 11; 16 hands high; nine years old; sound; a prompt server and sure.
JAMES RUTH, Lnray, Kans.

BARGAINS, IF SOLD BEFORE MAR. 1.

One Percheron stallion; black; 10 years old; 1900 pounds. One Symboler stud colt, as good as they make 'em; bay; 2 years old; 15¾ hands; 1100 pounds.

One black jack with white points; 10 years old; 900 pounds; sure and quick server. All registered.
F. E. KNOWLES,
225 North Market St., Wichita, Kans.

SADDLE STALLIONS

For sale. Jim Patterson 4000; 4 years old; Sam Mede 5376, 2 years. Both are sired by Chester Mede 1676; he by Chester Dare 10; dam, Sallie F. 2865; she by Quarry Denmark 1337; he by Kentucky Denmark 300. They have been taken good care of and are well developed. We are going out of business and will price these horses worth the money.
CRAIG BROS., Pittsville, Mo.

FOR SALE.

One registered Kentucky saddle stallion; 8 years old. One imported German Coach; 12 years old. Four big boned young jacks; 2 to 8 years old; 14 to 16 hands high.
CHAS. H. CLANCY, Baryties, Mo.
R. R. station and long distance telephone, Blackwell, 51 miles south of St. Louis on I. M. R. R.

HIGH CLASS SADDLE STALLIONS

at bargain prices. Sired by Black Knight 2366, by Monarch 1266, by Highland Denmark 730, by Black Squirrel 58. First dam by Artist Montrose 51; second dam, Vannie 1519.

Also big black Mammoth jacks and jennets. Selling on account of failing health.
J. E. BRADLEY, Carthage, Mo.

FOR SALE AT A BARGAIN.

A pacing colt; 3 years old last July; sired by Symboleer, 2:08¼; his dam is Trilby, record of 2:18. This colt weighs 1050 pounds and is a smooth traveler. Has not been trained, but is broke single and double.
J. H. MOORMANN, Solomon, Kans.

For Sale at a Great Sacrifice

A very fancy, large, big acting, imported German Coach stallion. One 1100 pound, 4 year old, black jack. Right every way. A few extra saddle bred stallions from weanlings to six year olds. Also mares and fillies. Come and see them.
J. A. TUTTLE, Guthrie, Ky.

HIGHBALL 2ND, 2574

for sale or trade. A. M. S. H. B. A. of Louisville, Ky.; black; small star, 16¼ hands; sire Greatland 1408; grandsire Highland Denmark 730; dam Vasie 1896; foaled March 6, 1904. Will sell worth the money or trade for a good jennet or two or a young jack if a good one.
M. A. RICHBURG, Winnsboro, Texas.

REGISTERED STANDARD BRED

Leslie McGregor 47681, by Aaron McGregor 33581, by Fergus McGregor 2282. Dam Sweet Alice by Glenwood 12403; rich, dark bay; 8 years; sound; licensed. Would trade for a good, big, young Percheron or Belgian, one Shire-Clydesdale crossbred; 1800; dark bay; good breeder; cheap. Four jacks 14½ to 16½ hands; good ages.
S. J. MOLBY, Agricola, Kans.

ARABIAN STALLION FOR SALE.

Bay and white; 6 years; 16 hands; 1000 pounds. Excellent breeder; sure; two-thirds of colts spotted. Gentle and broke in all harness. Quitting business. Price $400.

E. J. MUNTER,
Vandalia, Fayette County, Ill., Route 3

SADDLE STALLION

For sale. Alfonso 1927; five gaited; fast at rack and trot; good in harness; good breeder and sure foal getter; sound. Will sell at a bargain. Also two coming two years of Chief Strain.
G. H. Hennemann, Elmont, Mo. R.R. 1.

SADDLERS FOR SALE.

Registered stallions and mares; all ages. Also a few Hereford bulls.
H. A. GREENWELL,. Lakenan, Mo.

BUY A TRIED SIRE.

To dissolve a partnership, we offer our fine herd stallions for sale. Russell's Comet 57680, A. T. R.; is a seal brown, standard bred stallion, coming 4; weight, 1150; thoroughly broken to all harness. A prize winner at Bushnell, Ill., and pronounced "a beautiful colt" by expert judges. The black Percheron stallion Renil 47374, P. S. of A.; age, 7, weight, 2080 pounds; has good disposition; big feet and bone and showyard style and conformation. A Great sire; rich in Brilliant blood, and fit to head a pure bred herd. Imported Shire stallion, Barnfield Knight 8044 (22088); 11 years old; bay with white marks; weight, 1930 pounds. He is low-down; 12 inch bone; lots of quality and gentle. This horse sired the first prize yearling stud colt in the open class at Illinois State Fair in 1911; rich in the blood of Harold and William the Conqueror.

These horses are absolutely sound; have worked and are sure breeders. We have mares in foal and colts to show. Buy a **tried sire.**
WM. H. DILWORTH & SONS, TABLE GROVE, ILL.

OPENING FOR A BREEDER.

I will make a good proposition to any graduate of the Graham Horse Breeding School who wants to go into the breeding business. I have a registered Belgian stallion and a 1100 pound jack and breeding barn and pens. I will sell horse and jack and rent barn, or I will sell to some one that understands the breeding business, and he can pay me half what he makes off the stock until paid. I have no time to look after them and they cost—the jack $1,300 and the horse $1,600, so you see the first cost is $2,900, and it will not do to have any but a qualified man to look after them, for I think I have too much in them to risk.

Come and see the location and the animals; that is the only way to know what this proposition is worth.
J. L. KILPATRICK, WHITEWATER, KANSAS.

SELLING OUT.

On account of rheumatism and lack of competent help, I have decided to sell my stallions and jack, a jennet and a span of black Percheron mares, registered.

Dapple grey imported Percheron; 7 years old; a ton horse today in work horse condition; can easily be made to weigh 2,200. Sound; a sure foal getter.

Six year old black imported Percheron, in fair condition, 1900 pounds. A show horse; sound; a sure foal getter.

Home bred black Percheron stallion; 3 years old; 1800 pounds. An exceptionally good one and a very sure foal getter; sound.

Black, two year old home bred stallion; 1750 pounds; a cracking good one; will make a ton horse; sound.

Roan imported Belgian stallion; 7 years old; a ton horse in condition; a sure foal getter and sound.

The jack is registered; black with white points; 9 years old; 925 pounds; 15 hands horse measure. The jennet is recorded 15.3 with weight better than 1,000 pounds. Will sell a man one or all these horses. Will give a 50 per cent breeding guarantee. If they are not as represented return them and I will refund purchase price. I might consider a trade for a good farm, not too far away, or for cattle.
THOMAS McNAMARA, BLOOMINGTON, WIS.

SUNSHINE PRINCE
A. T. R. 47227



Foaled 1903.
Height, 16 hands.
Weight, 1250-1400 lbs.
Beauty, see cut.
Conformation, a show-ring winner.
Race horse, record 2:19¼.
Foal getter, colts to show.
Stamina and disposition.
$800—photo on request.
Might consider jack part pay

HUGHES HORSES
SHERMAN, ILLINOIS

STALLIONS IN SERVICE
Stallion and Jack for Sale.
Council Chimes P. 2:07½, a demonstrated speed sire; sire of Minnie Chimes 2:04½ and many others in standard time. Terms $10 when mare is bred and a note for $40 due when a living colt is foaled. Write for pedigree and information.
I have a good French draft stallion and a big grey jack for sale.
DR. D. H. BIBENS, Larned, Kansas.

EXCELSIOR SHETLAND PONY FARM.
Registered and High Grade Ponies for sale. W. H. Fulcomer, Belleville, Republic County, Kansas.

SHETLAND STALLIONS.
To lease, for season of 1914. Spotted and solid colors. Mares, colts and geldings for sale.
GEO. H. SIMPSON, Wheaton, Ill.
25 miles west of Chicago.

BREEDING STOCK and STOCK FARM
For Sale—560-acre stock farm, the best in the county. Also 3 jacks, 1 saddle stallion, 1 Coach stallion and 2 Belgian stallions. This place and stock is for sale and will be priced right for quick sale.
ED. JOY, GOLDEN CITY, MO.

MERCHANDISE FOR LIVE STOCK.
I want to trade equity of $2,250 in $3,000 stock of merchandise, now with the Interstate Mercantile Co., Oklahoma City, Okla., for some good live stock. Describe and price in first letter. C. MICHEL, Leslie, Mo., Route 2.

PUBLIC AUCTION—FEBRUARY 13.
PERCHERONS AND POLLED DURHAM CATTLE.
One imported stallion; black; weight 2010; two, two year old stallions; black; weight 1900 and 1820; eight brood mares; bred; weight 1600 to 2150.
Ten cows and three bulls. All registered stock. Send for catalog.
PETER ANDERSON, Piper City, Ill.

GOOD SHORTHORNS.
Pratical cattle for both beef and milk. Just the kind the farms of the country need, and with breeding and conformation to make show cattle if you want them. I show my breeding stock successfully, but no stock is ever crowded enough to hurt it.
Pleased to show stock, quote prices and answer inquiries at all times.
C. H. White, Burlington, Kas.

Live Stock Market Review

January, as expected, opened up a big volume of business in horses and mules. Southern demand sprung into prominence and feed barn supplies were rushed to market. The movement was really heavier than the demand justified, but buyers traded freely and only the plainer grades met any discrimination. Half fat out of conditioned grades were not wanted, but they were sent in along with the good ones. Such is generally the case, however, and such a condition always gives the market the appearance of pulling two ways. A Southern dealer in mules remarked the other day that his section of the state would use a large number of fat mules, but that there was no outlet for those in thin flesh. Planters now want mules for immediate use and the kind that can have some flesh worked off rather than the kind that have to be built up. The Eastern cotton belt has been the principal buyer of mules, though inquiry now is picking up from the Central and Western belt. Plantation work is fairly well started in the Southern belt and will work northward as the season advances. Recent reports from Southern Texas state that grass and weeds are growing rapidly and that the weather is extremely mild. High prices of feed and the prospects of a good demand caused the heavy movement. However corn, oats, and hay prices now are lower than they were a month ago, and the lack of general feeding is causing demand to fall far below normal. This may result in modifying the movement from feed barns. Some horses are selling South, and good grades are steady in price. The South, however, takes more kindly to mules than horses. Eastern demand for heavy horses is picking up, but the general trade is held in check by lack of offerings. Demand from Central belt farms is still small, but that will improve later, and it is the general opinion that farm requirements will be large by the middle of February. Good brood mares are wanted in all directions, but the volume of business is extremely small in that line. Good soundy chunky mares would sell from $175 up, and the big heavy class in hardy colors would bring upward to $300. Farmers are constantly wanting better quality in animals taken for brood purposes.

Some spring demand is expected from the Northwest, and the movement into Canada this year will exceed that of a year ago. The Canadian Northwest harvested a big crop of wheat last fall, and this spring will sow more wheat than last year. They have done little in the past year towards producing their own horse power and will have to come to the States to increase numbers,

Prices now on all equine offerings are as high as a year ago, and higher than in December. Late last January the highest prices of the year were recorded, though dealers do not expect further advances this month.

The following quotations are for serviceably sound horses and mules 4 to 7 years old:

Horses—	
Drafters, choice, 1600 lbs. up.	$250@285
Drafters, fair to good	155@245
Chunks, fair to choice	135@165
Chunks, fair to good	90@135
Expressers and light draft	65@130
Plain workers	45@ 90
Southerners, good	125@150
Southerners, plain to fair	60@130
Plugs	20 @45
Mules—	
13 to 14 hands	$ 90@140
14 to 15½ hands	120@175
15½ to 16 hands	160@215
16 to 16½ hands	200@285

The demand for cattle has been active at slowly rising prices since the first of the year. Compared with closing quotations in December the market for steers now is 35 to 50 cents higher and quality considered about 75 cents higher than a year ago. Receipts as far as numbers were concerned, were fairly liberal, but the offerings have lacked weight and the total supply of beef shows shrinkage in pounds to a noticeable degree. The top price for steers at river markets in the past two weeks was $9.10, and the bulk of the native fed steers sold at $8.15 to $8.80. In Chicago a large number of steers, of seasonable quality sold at $9 to $9.50, and practically none below $8.

Cattle Market Turns Up.

Western killers have complained of the quality of the offerings, but in the East where seasonable feeding is still in progress market supplies are fairly good. Heavy steers are sellnig relatively better than they did a month ago, and slightly higher than the light weight class. Killers say that heavy beeves from now on will be extremely scarce, and prices are expected to show a further advance. The Western steers moving are those that have been fed silage, cotton seed product, sugar beet pulp, and in some instances wheat. Probably never before has corn entered less into Kansas beef making than during the present season, and for that reason killers consider future supplies as far below normal. Wyoming and Utah will not market hay fed steers much before April, and they will have the right of way to demand as few fed cattle will be offered, and no grass fat cattle will be available. Western steers are quoted at $7.25 to $8.45. Some Old Mexico steers, little better than "canners," sold at $5.80, practically on the basis of hide values. On the quarantine side steers sold up to $8.20, the highest price ever reported in January, and 30 cents above the previous record. Other steers sold at $6.25 to $7.90.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.00@9.35
Good to choice steers	8.35@8.95
Fair to good steers	7.50@8.30
Common to fair steers	5.80@7.45
Meal fed, choice	8.00@8.50
Meal fed, common to fair	6.75@8.00

Slight Price Changes in Cows.

No particular variety entered into cow prices in the past two weeks. Fluctuations of 15 to 25 cents were reported but net changes were of no consequence. Choice cows sold up to $7.50, and heifers up to $8.50, and while they were the best the market afforded they were not strictly prime. More common "canners" were offered than usual. It seems that farmers are getting rid of all female stock too old to produce, and all classes that show an inclination not to do well. Canner cows are quoted at $4 to $4.75, the commonest kinds slightly lower than two weesk ago. Plain to good cows are bringing $5.25 to $6.50, and the same classes of heifers $6 to $7.75. Veal calves are selling at $6 to $11, mostly $9 to $11. Prices were never as high as they are at present. Bulls are in active demand.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$6.75@ 7.50
Fair to good	6.00@ 6.70
Common to good	5.00@ 5.95
Canners	4.00@ 4.85
Heifers—	
Choice fed	$8.25@ 9.50
Good to choice	7.50@ 8.25
Common	5.50@ 6.45
Plain to fair	6.50@ 7.45
Veal calves	6.00@11.00
Bulls	5.00@ 7.50

Big Trade in Stockers.

More than 26,000 thin cattle, about one-third of the total number of cattle received, were sent back to the country in the first two weeks this year. This is the record shipments for the first two weeks in any January. Most of these cattle were the lighter weight grades, 500 to 750 pound stuff, that are being taken to turn on grass in the early spring. Most of them sold at $6.25 to $7.50. Some selected feeders, weighing 900 to 1,050 pounds, sold at $8 to $8.50. They will be short fed and turned to market. Owing to the scarcity of corn, the Eastern demand for heavy feeders is expected to be extremely small. Stock calves sold at $6.50 to $8.50, and only plain types brought less than $7.50. The supply has been small. As the spring season advances greater activity is expected to show in the stocker trade.

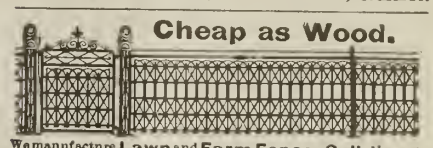
The following quotations are for stock and feeding cattle:

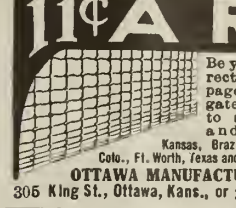
Selected feeders	$ 7.60@ 8.50
Good to choice feeders	7.25@ 7.65
Plain to fair feeders	6.50@ 7.25

I will give you a pig if you are not satisfied
My big type Poland China boars are sired by Cox's Wonder, by Rude's Giant and out of a Long King sow and by A. Model, grand champion of Iowa, 1912, and others. I sell at farmers' prices. Write me.
B. F. MARMION FARMINGTON, IOWA.

Seeds Shipped On Approval
Medium red clover, big English clover, alsike clover and timothy seed. Boone County white and Reid's yellow dent tested seed corn. Write for samples and delivered prices.
J. W. RICHARDS, Ferris, Ill.

Alfalfa Seed
Dawes County, Non-Irrigated Alfalfa seed cane, millet and sweet clover seeds. Baled alfalfa hay, all cuttings. Prices and samples free.
SCHWABE BROS., CHADRON, NEBR.

Cheap as Wood.

We manufacture Lawn and Farm Fence. Sell direct shipping to users only, at manufacturers' prices. No agents. Our catalog is Free. Write for it today.
UP-TO-DATE MFG. CO. 990 10th St., Terre Haute, Ind.

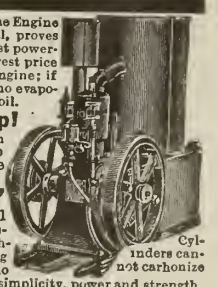
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305 King St., Ottawa, Kans., or 305 Church St., Brazil, Ind.

GUNN'S 2-HORSE, GUIDER ROAD BUILDER


Fair associations, clean the pole, and build up the turns. 10-ft machine has two guider wheels.
Sold on 15 days trial. Guaranteed to move more dirt with less draft than any machine made. Two levers, one tilts the blade any angle, one raises and lowers the rear end of blade, leaving the dirt where you want it, crowning road bed smooth.
Made in 3 sizes
7-ft blade, $20
14-ft " $25
7-ft weighs 300
20-ft " 350
D. B. Gunn
RED OAK, IOWA

1½ H.P. GASOLINE ENGINE $24.75

Simple, durable, powerful. Carefully made to give satisfaction. 34 sizes and kinds. Shipped anywhere on trial. Fully guaranteed. Send for Big 48 page Catalog. It will help you to buy a better engine for less money.
OTTAWA MANUFACTURING CO., 521 King St., Ottawa, Kansas.

Use KEROSENE Engine Free!
Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing. No waste, no evaporation, no explosion from coal oil.
Gasoline Going Up!
Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline.
Amazing "DETROIT"
—only engine running on coal oil successfully, uses alcohol, gasoline and benzine, too. Starts without cranking. Only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Cylinders cannot carbonize

Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Engine tested before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate the money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, you get Special Extra-Low Introductory price. Write! (138)
Detroit Engine Works, 203 Bellevue Ave., Detroit, Mich.

WHITEOAK STOCK FARM

American Bred Percheron Stallions and Mares.



The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.

Jacks, Jennets, Mules, Horses and Cattle

PUBLIC SALE, JANUARY 29

at my farm 1-2 mile S. W. of Kiowa, Kas., commencing at 10 o'clock A. M. promptly

22 Jacks ranging weanlings to 8 years of age, including my great herd jack, extra heavy boned; 16½ hands high; as good as grows; black with mealy points. Several of his colts in sale; 9 head coming 3 years old; 6 head coming 2 years. (These jack colts are very heavy boned.) 5 weanlings.

15 Jennets, all young and in foal. One jennet with jack colt by side. These Jennets are all bred to the herd jack; he has the size, bone and a big foot.

20 head of mules ranging in age from weanlings to 7 years old.

25 head of horses, including one Percheron stallion colt coming two years old; a fine one; very large; sire and dam both imported; choice of his crop on J. C. Robison's farm. Some good heavy mares in foal to jack, and some well broke driving mares. One registered trotting bred mare, four years; fine single driver; one fine family mare 5 years; safe for any lady. Some nice yearling and two year old colts; one registered trotting bred stallion 3 years old; black; weight 1200; well broke; good single driver. He is by Thornfield, 2:10½; is a beauty and a fine prospect.

15 head of Jersey cows and heifers. All full blooded stock, but not registered. Also 10 head of calves, 70 head of 2-year-old steers, all native stock and a nice bunch. Will keep the steers on my wheat at the regular price per month, for the parties buying them, if they so desire.

10 bushels of fetereita.

I. N. GREEN, Kiowa, Barber County, Kansas

Auctioneers:—Col. Pete Powelson, Col. Bob Harriman, Col. John Snyder.

40--Big Black Jacks and Jennets--40



Come to one of the oldest jack farms in Missouri. I make a specialty of breeding the big kind; extra big bone; big bodies. My barns are full of big young ones from 2 to 6 years old; 15 to 16½ hands.

ED BOEN, LAWSON, MO.

(Lawson is located 38 miles northeast of Kansas City on the C., M. & St. P. Ry., also 40 miles southeast of St. Joseph on A., T. & S. F. Ry.)

Selected stockers	7.50@	8.10
Good to choice stockers'	6.85@	7.45
Plain to fair stockers	6.00@	6.80
Stock calves	6.25@	8.50
Stock cows	4.75@	6.00
Stock heifers	5.00@	6.65
Milch cows	50.00@	110.00

Active Trade in Hogs.

January prices for hogs thus far are the second highest ever recorded in the first month of the year and were only 35 cents higher than at the present time in January, 1910. In the following March of that year hogs sold up to $10.90. Compared with closing quotations in December prices now are 40 to 50 cents higher, and about $1 higher than a year ago. January under normal conditions is never a month of high prices, but recent losses among hogs from cholera and reduced feeding owing to lack of corn has cut the supply off in numbers and pounds. This figures a material reduction in total product. Packers now seem more anxious for supplies than at any time in six months past and though prices are holding at $8 and better they are buying eagerly. The top price in the past week in Chicago was $8.50, in St. Louis $8.55, and at river markets $8.40. Heavy hogs are selling at a big premium over the lighter weights. Shippers are buying a good many hogs and most of their purchases are going to points east of Ohio.

The following table shows prices for hogs in Kansas City in the past two weeks.

		Preceding Week.
Monday	$7.75@8.25	$7.70@8.15
Tuesday	7.80@8.25	7.75@8.20
Wednesday	7.90@8.30	7.70@8.07½
Thursday	7.90@8.40	7.65@8.15
Friday	7.90@8.35	7.75@8.25
Saturday		7.80@8.20

The following quotations are for hogs:

Choice, 250@300 lbs	$8.25@8.40
Choice, 200@240 lbs	8.15@8.35
Medium weight	8.00@8.32½
Light weight	7.75@8.20
Common to fair	6.50@8.00
Stags	6.25@8.10
Boars	4.50@6.50
Bulk of sales	8.00@8.35

Strong Demand for Sheep.

In the past two weeks the movement of Western lambs has been large, and the principal source of supply at river markets.

25 Mammoth Jacks and Jennets

For sale. I have more high class jacks and jennets to offer the public this season than I have ever had before. They are bred right; priced right, and fully guaranteed.

JAS. M. SPURGEON,
Williamstown, Lewis County, Mo.

JACKS AND JENNETS.



Eighty large boned black Mammoth jacks, 15 to 16 hands standard; guaranteed and priced to sell. The kind all are looking for. Also good young Percheron stallions. Reference, five banks of Lawrence. Forty miles west of Kansas City on Santa Fe and Union Pacific

AL. E. SMITH, Lawrence, Kans.

DEIERLING & OTTO'S

MAMMOTH JACKS AND JENNETS



40 head big, black Mammoth jacks, 25 jennets—the big, wide-out, 15 to 16 hands kind; from yearlings to 6 years old. Mostly two's and three's of our own breaking. Black with white points; heavy boned and good, including our 1913 prize winners.

We have a splendid lot of young jacks, jennets, Percherons, Saddle, Coach and Trotting horses to trade. Correspondence and inspection invited.

DEIERLING & OTTO, Queen City, Mo.
Main line Wabash—St. Louis-Des Moines Line.

Now is the time—

to make a trip to Texas and see just where *your* opportunity lies.

The price of good, rich land in Texas is so low that you can own a big farm there without investing much money or mortgaging the place. The land will raise as big or bigger crops than you are now raising, and you will get better prices for what you raise.

Ask your local agent to sell you a ticket via the Katy—or tell me where you want to go and I'll plan your trip, and give you full information about the *low homeseeker's excursion fares* on the first and third Tuesdays of each month.

I will also send you our free books on Texas opportunities if you want them. Write today.

W. S. St. George, Gen'l Pass. Ag't. M., K. & T. Ry. St. Louis, Mo.

STEEL Shingles



Astounding PRICES!

Give size of roof and we'll quote, by return mail, the lowest price ever offered on STEEL Shingles. And these are the genuine Edwards. Can't *burn* or *rot*. Can't rust (due to Edwards "Tightcote" Process and patent Interlocking Device). Many times easier put on than wood, cost *less* and last four times longer. Over 125,000 satisfied users. Sold direct from factory to user. Freight prepaid. Write Edwards at once. If you can't give roof size, get prices anyhow. Ask for Booklet 176. (141)

This Brings Big Offer

THE EDWARDS MFG. CO.
126-176 Lock Street, Cincinnati, Ohio

Please send Book on your Steel Shingles, together with latest Freight-Paid prices.

Name _____

Address _____

FOR SALE OR TRADE FOR LAND.

Five good Percheron stallions, some mares and fillies. All registered; big boned and growthy.

F. T. WALLACE, Assumption, Ill.

LAND FOR SALE OR TRADE.

160 acres close to market. All tillable; good soil. Price $2,500. Will take a good Percheron mare or stallion as part pay. Also a 320-acre homestead relinquishment; sell or trade cheap.

JAS. HILDRETH, Dighton, Kas.

ALFALFA AS A MONEY MAKER

Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Building, Kansas City, Mo.

Southern Colorado

Is today offering greater opportunities for the farmer, the cattleman, the horseman and the breeder than any other section of the entire West. We will be pleased to tell you of them.

Write for data to

The Information Dept.,

Pueblo Daily Chieftain,

The oldest and best known daily in Colorado.

Pueblo, Colorado

TO TRADE

Good, level, well located farm, all under cultivation, for Percheron stallions, mares or good jacks.

Lane Realty Co., Dighton, Kans.

TROTTER—LAND—CHICKENS.

A trotting stallion for sale, or trade for Percheron—Myron Shiloh 44249; dark chestnut sorrel; 9 years old; 16¼ hands; 1,300 pounds; sound and a great breeder.

Also have for sale or trade for breeding stock, nice prairie farm of 160 acres in Oklahoma, and 80 acres near Farina, Ill.

Buff Orpington chickens and Ducks for sale.

A. J. ROBNETT, Farina, Ill.

160-ACRE FARM

to trade for cattle or mules or Jersey cows preferred. Five miles west of Haskell City and 5 miles east of Rule in Haskell County, Texas, on a public road and one mile of a good school; 120 acres in state of fine cultivation. A good three room house with two galleries and painted; a new storm house and plenty of stock sheds; two wells of water, one very fine soft water and other a little hard.

This is a very fine little farm and will make anyone a good home and in one of the best farming countries in the west; a level prairie country and very thickly settled. I owe $1,500 loan on it, due January 1st, 1918. Title good. Please give a full description of your stuff in first letter.

S. M. COOPER,
Riovista, Johnson County, Texas.

Buy Land Today

Along the Union Pacific System Lines there are many large and small tracts suitable for stock raising, farming, dairying or fruit raising. In good communities, close to markets, near the railroad.

Your money put in this land today will in a short time, pay you big dividends. Write to me for complete authentic information. It is free for the asking.

R. A. SMITH,
Colonization and Industrial Agt.,
Union Pacific Railroad Co.
Room 1771 Union Pacific Bldg.,
OMAHA, NEB.

You can make big money farming in Arkansas

Same Latitude—Same Crops

THE soil is newer, richer and much lower in price. A splendid climate makes it possible to produce bountiful crops of nearly every variety known to man. It will pay you to investigate.

We have just published six illustrated folders on Arkansas. Send for the one that interests you.

1. Central Arkansas
2. Northeastern Arkansas
3. Southeastern Arkansas
4. Southwestern Arkansas
5. White River Country
6. Arkansas Valley

The way there is via Memphis and the

Iron Mountain Route

Splendidly equipped trains

Mr. J. N. Anderson, Immigration Agent, Iron Mountain, St. Louis

Please send me Arkansas Land Folder No. ____ *Name* ____

Address ____

From a Subscriber Who Began With Volume One, Number One.

To the American Breeder:—Enclosed find $1.00 to move my subscription date forward another notch.

I began with Volume 1, Number 1, of the Stallion and Jack News, and have not missed reading a single copy to date. I have never before written anything for you except a word of endorsement of the breeding school, which I found interesting and profitable.

I began breeding (in the way of using scientific principles) more than a dozen years ago, and yet I learned something worth while every day during the session that I attended, as well as something useful in reading each copy of the American Breeder. In fact, it is my experience in life that there is something to be learned from each individual one comes in contact with that is of more or less value, that is, if you are desirous of learning.

As to breeding, the subject is one that the utmost research will not exhaust in one's lifetime. I could write you a very lengthy letter on experiences that I have had, and fear to begin—subjects and problems that are touched in your columns; as to terms; principles of doing business; the importance of a thorough knowledge of one's business as a breeder; the great responsibility that is placed on one's hands so often, not realized by the stallioner or his patrons; the fear that breeders experience within themselves of offending patrons with old time nonsensical notions, to the extent that knowledge, experience and wisdom acquired by years of study and large expenditure must give right of way to ignorance and prejudice, thereby entailing waste and loss, not only to themselves, but to the communities in which they deisre to be helpful.

I doubt if any breeder of my years ever had a wider range of such experiences, at the same time have given more ample evidence of ability and willingness to be in every way helpful to those so much in need of help. And yet, I have practically retired for the past three years, except for a very limited patronage. I am giving my attention to my small farm and letting the folks with high priced "shams," sold principally on the company style and manner of doing things, have the field. The result has been and is still very disastrous to breeders and mare owners. here. Thousands of dollars of loss occur each year, chiefly from a want of knowledge of the fundamental principles of such a business.

Three years ago individual mare owners lost up to $1,500 as a result of influenza contracted at breeding barn, the sires being allowed to continue service while sick; no attention being given to prevent infection of either stallion, jack, mare or foal. To protest, offer a word of advice or warning, was of little avail, except to further arouse and antagonize the ignorant and vicious, and many worthy people have been among the list of losers.

This letter is too long now, but I want to say in the matter of ability, I challenge the breeding fraternity as to results obtained. My records as shown by books kept, is: First, 45 mares ranging in age from 18 to 30 years, considered barren, were made to produce from one to four good, strong foals. Second, a quartet bred at one service, one of which was an irregular breeder of 18 years of age, one barren, 17 years of age, one barren, 13 years of age, and one 16 years (that I had bred as a barren mare a couple of years previous and secured a foal) were served all from one service (two of them not being in heat), resulting in three strong live foals and one lost by reason of an accident. Third, one mare 28 (that had been known to have one live foal some years before) was bred and brought a foal at 29 years of age; one at 30 years of age. Both colts lived and are still living, five and six years old. Lost one at 31, and another at 32 years of age, dying that season. On the third proposition, I lay claim to a world's record and offer this as a challenge to all comers. Would say that I have used several kinds of instruments in my undertakings, but think the Carlson the best in every way, and the capsule system, if properly conducted, the best for results.

I have some different terms from most of those seen published, viz.: I examine every mare for infection and temperature; pass my opinion, and rejecting all not in proper condition to get results; advise as to putting in condition, etc., free. Terms to those bred, half of the fee due at time of first service, either in cash or note with interest; settling time best suited to owner of mare to pay; the other half is due when foal stands and sucks or mare is sold, removed or otherwise disposed of except that owner can present mare for trial and if not in foal, a release is given on second half of fee. When properly understood, there are few reasonable men object, but being different from competitors they have a good chance to misrepresent me, which they do not hesitate to do.—O. T. Muzzy, Lonoke County, Ark.



CAPSULE COLTS ON THE FARM OF R. G. HYNICKA, LEBANON, PA.

This Coupon Is Good for Prof. Beery's Introductory Course in Horsemanship FREE!

CUT OUT AND MAIL TODAY

PROF. JESSE BEERY, Box 13, Pleasant Hill, Ohio

Please send, free of cost, to the address below, Prof. Beery's Introductory Course in Horsemanship

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Bad Habits Cured

By Beery System

Refusing to lead.
Running away when halter or bridle is removed.
Getting fast in the stall.
Pawing in the stable.
Pawing while hitched.
Crowding in the stall.
Fighting halter or bridle.
Tender bitted.
Pulling on one rein.
Lugging on the bit.
Lunging and plunging.
Refusing to stand.
Refusing to back.
Shying. Balking.
Afraid of automobiles.
Afraid of robes.
Afraid of clothes on line.
Afraid of cars.
Afraid of sound of a gun.
Afraid of band playing.
Afraid of steam engine.
Afraid of the touch of shafts or harness.
Running away.
Kicking
Biting. Striking.
Hard to shoe.
Bad to groom.
Breaking straps.
Refusing to hold back while going down hill.
Soaring at hogs or dogs along the road.
Tail switchers.
Lolling the tongue.
Jumping fences.
Bad to hitch to buggy or wagon.

To all men owning horses, who answer this advertisement immediately, I will positively send my introductory course in Horse Training and Colt Breaking ABSOLUTELY FREE.

World's Greatest System of Horsemanship

Twenty-five thousand FARMERS and horse-owners have taken my regular course and found that *it does the work.* Even if you have only *one horse*, it will pay you to master my wonderful system. The Beery Course is the result of a lifetime's work as a tamer and trainer of horses. As one of my students has said, "The horse has never been foaled that Prof. Beery cannot handle." My record proves it.

Master Any Horse

The Beery Course gives you the priceless secrets of a lifetime—enables you to master any horse—to tell the disposition of any horse at sight—to add many dollars to the value of every horse you handle—and my students are all good traders.

Break a Colt in Double-Quick Time!

You can do it by my simple, practical, humane system. There is a lot of money in colt training.

Make $1,200 to $3,000 a Year

Many of my graduates are making big money as professional horse trainers at home or traveling. I made a fortune traveling and giving exhibitions. You have the same opportunity.



BEFORE TRAINING



AFTER TRAINING

My Graduates Are Doing Wonders

A. L. Dickinson, of Friendship, N. Y., says: "I am working a pair of horses that oleaned out several men. I got them for $110, gave them a few lessons, and have been offered $400 for the pair." Fred Bowden, R. R. No. 2, Keokuk, Iowa writes: "It's worth many times its cost." I have many similar letters from graduates all over the world.

Send the Coupon

and get the Introductory Course in Horse Training FREE. This special offer may never be repeated. Act now. Tell me about your horse.

PROF. JESSE BEERY
Box 13, Pleasant Hill, Ohio

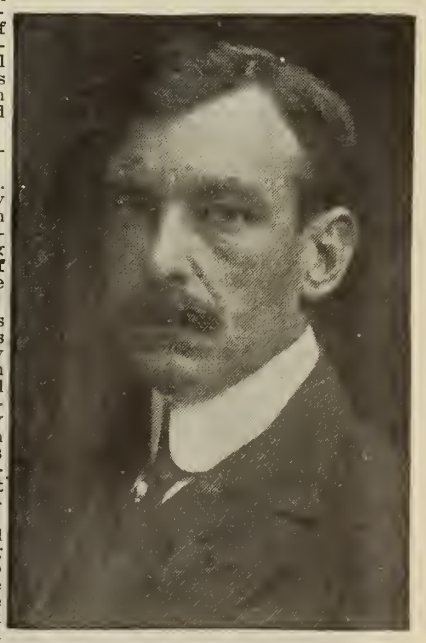
Inventor of Steel Shingles Honored by Business Men

E. W. Edwards, inventor of the famous Edwards Steel Shingle, and with whom many readers of this publication are acquainted, has just been chosen head of the Business Men's Club in one of the nation's largest cities. This commercial body is composed of the leading business men of Cincinnati. Mr. Edward's election shows the confidence in which he is held by men who know him best.

Besides being the originator of the Edwards Steel Shingle, Mr. Edwards is president of the Edwards Manufacturing Co. He was the first man to see the economy and safety in the use of steel shingles on farm buildings, and that they must eventually replace the quickly deteriorating and costly wood shingles. Thousands of buildings in all parts of the country are protected by Edward Steel Shingles.

The reason why Edwards Steel Shingles have become so popular is that their edges and surface are protected against rust by a special process. This process is known as the Edwards "Tightcote" process, and was invented by Mr. Edwards. Each Edwards Steel Shingle has not only thoroughly galvanized sides, but each edge is dipped in molten zinc. This thoroughly protects Edwards Steel Shingles from rusting at the very point where common tin roofing is most susceptible.

Another thing which has popularized these shingles is that they come in big clusters of 100 or more. They require no skilled laborers, and most farmers have their farm hands do the work. Because of the heavily galvanized sides, no paint is required. There are now more than 125,000 delighted users of the Edwards Steel Shingle, who will be interested in knowing of this unusual honor conferred on the inventor.—Adv.



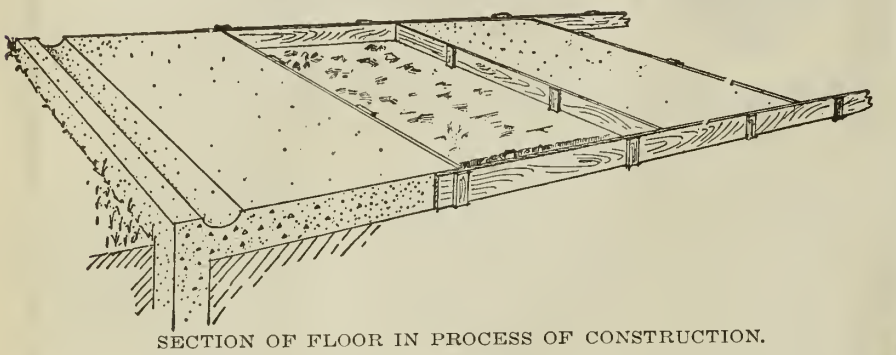
E. W. EDWARDS.

Concrete Feeding Floors and Barnyard Pavements

The saving principle of feeding floors has long been recognized by successful breeders and feeders of live stock. The trouble, heretofore, has been to obtain an entirely satisfactory material for floor construction.

Wooden floors kept the feed out of the mud and dust and not only saved every particle of grain, but also prevented wheezing coughs and otherwise temporarily improved the health of the animal. However, in a short time, the best wooden floors rotted out and became infected with disease germs. Often floors had to be burned to free the farm of hog cholera.

In concrete the farmer and ranchman have found an ideal floor material. Such floors not only effect a saving in feed, a shortening in the time of fattening and a decrease in labor, but also afford perfect protection to the health of the animal. Concrete floors do not soak up water and therefore cannot become infected with disease germs. Their surfaces can be easily cleaned and thoroughly disinfected with oils and dips. Rats cannot nest under them. Careful tests have shown that concrete floors, through the saving of grain and manure alone, pay for themselves in the short period of one year.



SECTION OF FLOOR IN PROCESS OF CONSTRUCTION.

Feeding floors are merely several sidewalks laid side by side, and the same general rules of construction apply to them. Choose a site in the lot where the ground is slightly sloping, well drained and wind-protected, and convenient to feed and water.

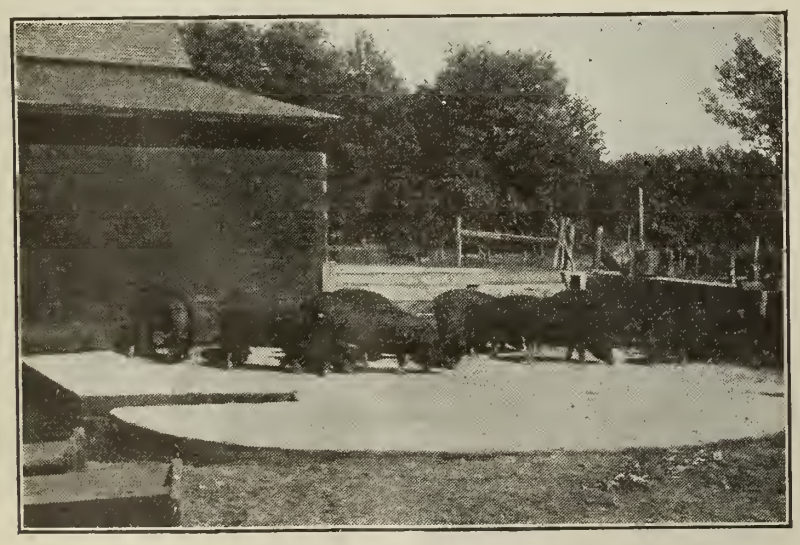
Excavate to a depth of 12 inches for the drainage foundation, and around the outside edges of the entire floor dig a trench 12 inches wide and 18 inches deep. (This trench, filled with concrete, prevents hog wallows from undermining the floor and keeps the rats from nesting under it.) Fill all of this space (except the trench) to the natural ground level with well tamped coarse gravel, crushed rock, tile culls or brickbats. This fill forms the drainage foundation as for sidewalks.

The floor must be graded or sloped so that water will not collect on it in the winter and so that the manure washings may be caught by the gutters and run to the water tight concrete manure pit. (To shape the gutter, make a mold or templet by rounding the corners on the flat side of a 6-foot length of 4 by 6-inch timber.) A gentle slope, toward the low corner, of ⅛ to ¼ of an inch for each foot of length or width is sufficient. This is secured by the use of a heavy grade stake at each corner of the floor, a straight-edge or a grade line, and a spirit level.

It is an advantage to have a feeding floor its full thickness above ground. Make light floors 4 inches and floors subject to heavy loads 6 inches thick. For the forms use 2-inch lumber of a width equal to the floor thickness. Begin on a low side of the floor. Mark the grade height of each corner stake and set the forms to a grade cord stretched from stake to stake. Use only good materials and mix the concrete 1 part Portland cement to 2½ parts sand to 5 parts screened gravel or crushed rock, or 1 part Portland cement to 5 parts bank-run gravel. Measure the materials exactly; count 1 sack of cement equal to 1 cubic foot.

Placing the Concrete.

Always begin placing the concrete on the low side of the floor, so that the rain from sudden showers will not run from the hard onto the newly placed concrete. Fill the trench and the slab section of the forms with concrete. Bring the surface to grade by drawing over it a straight edge with its ends on the opposite forms or with one end on the form and the other on the finished concrete. Four inches in from the edge, on each side of the low sides, temporarily imbed the rounded 4 by 6-inch butter mold and tamp it down until its square top is even with the surface of the slab section of the floor. Remove the mold and finish the surface with a wooden float. The day after the concrete in each section is placed, carefully throw on a covering of hay or straw, and keep it thoroughly wet for a week.



FEEDING FATTENING PIGS ON CONCRETE FLOOR.

Connect the gutters with the manure pit by means of a trough, another gutter, or by large drain tiles laid underground. (See later article on Manure Pits and Cisterns.) If concrete feeding troughs and racks are to be built at some future time, make the necessary mortises by temporarily imbedding beveled blocks or wooden frames in the soft concrete.

Below is given an itemized bill of materials necessary for a 6-inch floor 24 by 36 feet, amply large to accomodate 50 hogs:

Crushed rock or screened gravel, 20 cubic yds. @ $1.10	$ 22.00
Sand, 10 cubic yds. @ $1.00	10.00
Portland cement, 28 barrels @ $2.50	70.00
	$102.00

Mixing the concrete by hand, 5 men can usually finish this floor in two days. Prices of materials vary greatly in different localities. The figures given above are safe; but, before deciding as to what your own floor will cost you, consult local dealers. De-



A THOUSAND BARGAINS In Harness, Saddles, Vehicles, Lap Robes, Horse Blankets, Etc. Bargains in everything for the horse and barn. We sell you direct from our factory.

We Guarantee to Save You at Least 20% over your home merchant and goods that will please you or refund your money and transportation charges. The very latest style buggies and save you from $20.00 to $25.00 on every job

Don't Delay for a Minute Send for this catalog at once. A copy is awaiting you.

ANISER HARNESS MFG. CO.

607-9-11 So. 7th St. Dept. 14W. ST. JOSEPH, MO.

Cuts of All Kinds

Made from Photographs

If you have a good photograph of your stallion, jack or any other animal, or of your house, barn or yourself, we can make you a cut from it, any size you want. **$2 pays for such a cut 3x3½ inches, or smaller, if photo is clear.** Larger cuts in proportion.

Ready Made Cuts at Lower Prices

We keep on hands the best line of stallion and jack cuts to be found in the country—a new line true to life, made from original photographs. Send for sample sheet and subscribers' prices.

N. B.—We do not do any printing. We simply furnish the cuts.

GRAHAM PUBLISHING CO.

225 WEST TWELFTH STREET, KANSAS CITY, MO.

Jack Sores Cured

By Using Jack Sorine. Sold With a Cash Guarantee.

O. P. WILSON SERUM CO., Kansas City, Mo.

Enclosed find my check for $5 for a package of your "Jacksorine" for jack sores. This is for a neighbor and shows on its face that your salve is doing my old jack's leg some good.

June 5, 1913. W. H. HAYS, Bloomfield, Ky.

We guarantee Jack Sorine to cure any sore on the legs of a jack or stallion, no matter how long it has been sore or what caused it. You know we have a good, reliable remedy or we could not guarantee it to cure all sores on the legs of stallions and jacks, without any restrictions. It is put up in a substantial box and sent promptly by mail. It is a paste and applied with a small brush.

Send money by bank draft or P. O. money order. Price $5.00.

O. P. Wilson & Co., 3754 Wayne Avenue, Kansas City, Mo.



FRAVEL'S DISTEMPER REMEDY

Guaranteed to Cure and Prevent Colts and Horses in same stable with sick ones from having Distemper, Influenza, Epizootic, Pink eye, Shipping Fever, Cataarhal Fever, Coughs, Colds and all Diseases of the Horse affecting the nose and throat. A powerful germicide given internally alone will do the work, and that is found in FRAVEL'S DISTEMPER CURE.

Made and sold by **A. W. FRAVEL, Ph. G.V.S.** Centralia, Mo.



ABSORBINE STOPS LAMENESS

from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone, or similar trouble and gets horse going sound. **Does not blister or remove the hair** and horse can be worked. Page 17 in pamphlet with each bottle tells how. $2.00 a bottle delivered.

Horse Book 9 K free.

ABSORBINE, JR., antiseptic liniment for mankind. Reduces Painful Swellings, Enlarged Glands, Goitre, Wens, Bruises, Varicose Veins, Varicosities, heals Old Sores. Allays Pain. Will tell you more if you write. $1 and $2 a bottle at dealers or delivered. Book "Evidence" free. Manufactured only by W. F. YOUNG, P. D. F., 388 Temple St., Springfield, Mass.



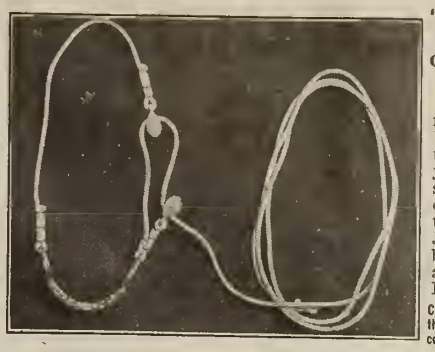
HUMANE HORSE COLLARS The best for any Horse or Mule, and the only kind suitable for working on a stallion. We make them to fit any size and kind of trace. Cut shows our No. 2, for short hame tug. If this is the style you want give width of trace and state whether you want it for horse or mule. If another style is wanted, send for our circular showing them all. Sizes **15 to 25 inches,** $7.50 each; larger than 25 inches, 50 cents extra.

TWO WHIPS

You Cannot Beat

No. 10—Heavy, high-test rawhide center, from butt to tip, rubber lined; double waterproof covered, 6½ feet long. Price. $1.00

No. 11—Special Stock Yards Horseman's Whip, full length, 10½ feet; lash 5 feet; 12 nickel ferrules. Price...$1.00



"CONQUEROR" STALLION BRIDLE

Guaranteed to Hold any Stallion or Jack

This bridle is made of especially selected material. Can be adjusted to fit any size head and for either hard or tender mouths. Just the thing for breaking runaways or kickers. Price, each, $2.50.

CAUTION:—Never tie an animal with this bridle. If he got to pulling he could split his head.

Every One of the Above Articles Sold On a "Money Back" Guarantee. Cash Must Accompany Your Order. We Prepay Shipping Charges.

BREEDERS HARNESS AND WHIP CO. 1204 Central Street KANSAS CITY, MISSOURI



No More Scalded Shoulders

Don't lose time and money because of sore shoulders. Don't pay out money for Hames and Sweat Pads. Try a pair of indestructible

Hameless Adjustable Metal Horse and Mule Collars

Endorsed by veterinaries and men of high authority. A. F. DeLaune, St. Thomas Plantation, Albemarle, La., writes: "Send me forty steel collars."

Think what that means to the horse owner. Think of the time saved—money saved and suffering saved the mules. Think of the extra work you could do with a collar that insures against galls and sore shoulders. Be humane, progressive and up-to-date and save money by using

Indestructible Collars

and you'll be free from sore shoulder troubles. The metal won't permit the sweat to scald and produce a sore. Being adjustable they fit the neck and bring the draft to correct point. Durable—last a lifetime. The ideal work horse and mule collar. Be sure and test out this great Twentieth Century invention—100,000 in successful use. Good Agents Wanted. Manufactured by

Johnston-Slocum Co., 933 State St., Caro, Michigan

Don't Have a Blind One

"VISIO"

A Remedy for Moon Blindness



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Shying horses all suffer from diseased eyes.

"VISIO" will convince any horse owner that it is the best remedy for defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our money back GUARANTEE.

$2.00 per bottle, postpaid on receipt of price.

VISIO Remedy Ass'n. 2475 Calumet Ave., Chicago, Ill.

Clear Eye

FOR ALL DISEASES OF HORSES EYES

Latest scientific remedy. It has cured thousands of bad cases. Satisfaction guaranteed.

Let us tell you all about it. Send us your address for our two compact **Veterinary Booklets**, containing all the most useful information a horseman should know. We wish you to know all about our complete line of **twenty-four remedies** covering all the needs of a horse. Satisfaction guaranteed or money refunded.

THE LAKESIDE REMEDY CO.

5410 Calumet Ave. Chicago, Ill.

ending upon price of labor and materials and the thickness of the concrete, the floor will cost 6 to 12 cents or each square foot of surface.

Concrete Barnyards.

The advantages of concrete feeding oors so appealed to the farmers who rst built them that they enlarged e floors until their entire barnyards ere surfaced with concrete.

It is no uncommon sight in the spring and winter to see an earthen barn lot so deep with mud that animals go thirsty rather than attempt a trip to the water trough

The effect is bad on all kinds of live stock, especially on fattening animals and dairy cattle. "Feeders" must have an abundance of water to fatten quickly. Insufficient water cuts down the quantity of milk given by dairy cows. Lack of enough exercise further decreases the yield. An occasional trip through this mud to the trough so cakes the cows' udders with dirt that the milker wastes valu able time in washing them—and they must be washed, if one would have clean, wholesome milk. Continual tracking through the mud not only makes more currying, but often produces that irritation on horses' legs known as "scratches." Suddenly frozen, such an earthen lot is so rough that it is impassable. Moreover, the old barnyard—with its surface worked up year after year—becomes a storage place, which carries over the disease germs from one season to another. The "droppings" are entirely lost, and, mixed with the earth, tend to make the lot muddier the following year. To keep up the fertility of the soil, all the manure produced on a farm should be saved and returned to the fields.

A concrete barnyard makes a fine exercise lot in all kinds of weather and always affords a dry spot for the animal's bed. Every shower washes the surface clean and flushes the droppings into the manure pits. Concrete yards lighten the work of the housewife, as there is no mud to be tracked on the walks and kitchen floor. The use of rubber boots is unnecessary. On concrete floors not a particle of grain need be wasted. The way to the water trough is always dry, smooth and passable. Concrete floors promote and protect the health of farm animals and increase the profits of farming, stock raising and dairying.

The construction of concrete barnyards is exactly like that of feeding floors, except that the work is on a larger scale. Often the entire lot is not paved in one season, but from year to year as the farmer has time. In excavating for the drainage foundation, be careful to remove all manure and straw which may be tramped into the ground and which may be so solid as to resemble earth. In time any kind of manure decays, shrinks, causes the floor to settle and forms water and ice pockets on its surface. Dig the trench for the foundation apron as for feeding floors—there is no material so rat-proof as concrete.

With the drainage foundation ready, set the forms in the same manner as for a sidewalk. Even if the whole lot is not to be paved at one time, plan the grading for the entire barn yard so that the completed pavement may have perfect surface drainage. Build and cure the pavement and make provision for saving the manure the same as for concrete feeding floors. Do not be too particular about giving the surface a smooth finish—a rougher finish affords the animals a better footing. The cost per square foot is no more than that of feeding floors—the investment yields even a greater profit.

MEASURING HAY.

To the American Breeder: Measuring hay in the stack is a common method of selling hay, but the methods and rules used are very varied. Very little actual experimental data has been obtained upon the accuracy of the different methods.

The U. S. Department of Farm management has made some experiments and uses the following method to find the cubic feet contents of the stack:

Measure the length of the stack, then the width, then with a tape measure over the stack from the ground on one side to the ground on the other side. (This distance is called the over)—multiply the width by the over and this by .31 (thirty-one hundredths of one). This will give the area of the cross section. Multiply this by the length and get total cubic feet contents. The factor .31 is variable according to the height, width and fullness of the stack and may be as low as .24 in low stacks or as much as .38 in high stacks.

The number of cubic feet to allow for one ton varies with the kind of hay and length of time it has stood in the stack, and is usually determined according to local custom.—S. B. Nuckols, Colorado Agricultural College.

WHY HORSE RAISING HAS BEEN BACKWARD.

To the American Breeder.—I feel that every subscriber should send to the American Breeder occasionally a few lines, as the paper has taken more interest in the horses and done more good than any other paper I can find in the United States. All of the other farm journals are just now trying to point out the good feature of the dairy business and trying to interest everybody in that. The newspapers are the cause of us being so much farther behind in the horse business than in all the other breeds of stock. They never have done justice to the horse, so I don't feel as if the horse breeders had ought to feel discouraged on account of the way the farmers themselves look at things, as most anybody gets on the wrong track once in a while.

They have tried out the automobiles and trucks and tractions for plowing, but they all have failed to make good or to take the place of the horse, as I might term it. We have got fairly well started in the horse now, why not keep at it, it will only be a few more years until we will be able to raise our own stallions and I don't see why we can't raise just as good stallions as the old country if we will only try and keep at it, as that is the only way we will ever raise our own males of all the other breeds of live stock. Why not the horse. I think it about time we were keeping this money at home instead of sending it away every year to buy stallions. It is too bad to think about a big, fine, rich old country as we have that we have to depend on other countries for our sires. So stick to the horse and raise bigger and better horses and you will win out. Don't be mislead by the farm journals. Let them have their dairy cattle.—L. D. Carter, Canyon County, Idaho.

To the American Breeder:—I have received letters from nearly all parts of the country in answer to my ad in the American Breeder. For a while I had two or three letters to answer every day. It is the best advertising medium I know of for horses and jacks.—H. M. Stephens, Republic County, Kans.

Horsemanship Taught by Mail

When Prof. Jesse Beery, known throughout the nation as King of Horsemen, began teaching horse training and colt breaking by mail, a great many people shook their heads and said, "It can't be done." But all his life Professor Beery has been doing, in the arena, before vast audiences, things that had never before been done.

So, despite prophecies of failure, he started The Beery School of Horsemanship and began teaching people **by correspondence** to do the very things which he did while giving horsemanship exhibitions in all parts of the United States. His graduates are meeting with remarkable success by applying Professor Beery's humane methods of horse training and colt-breaking. He has received hundreds of letters telling of the money they are making as horse trainers and in buying cast-off kickers and balkers cheap, training them and re-selling.

E. T. Eash of Stanford, Ill., writes: "I have three colts on hand and thirteen waiting their turn. I take from one to four colts in to work the farm and get $20 per head. I have taken in $500 since I have taken your course, besides tending a 240-acre farm."

James Robert Purdy, Staples Brook, N. S., Canada, writes: "I bought a mare for $50 and I have been offered $100 for her. Your lessons are great and I wouldn't take $75 for them."

Paul M. Staeheli, Addy, Wash., Box, 26, writes: "I have taken the course and am very well pleased. I have broken my balker, also broke a runaway which I bought lately. I am satisfied that my horses are worth $50 more."

Professor Beery offers to send his Introductory Course in Horsemanship free to owners of horses. This is an opportunity of which our readers should take advantage before it is withdrawn. Professor Beery's address is **Dept. 13, Pleasant Hill, Ohio.**—Adv.

A Genuine Rupture Cure Sent On Trial To Prove It

Don't Wear a Truss Any Longer

After Thirty Years' Experience I Have Produced An Appliance For Men, Women And Children That Actually Cures Rupture.

ARE YOU RUPTURED?

If so, the BROOKS APPLIANCE is made for You; You and all other Men, Women and Children who are sufferers from this annoying and dangerous trouble. That truss you have been wearing—one of many you have tried—chafed and irritated you and was worse than nothing. It had springs and pads and harness and straps and fixings galore and was continually getting out of shape—slipping down or working up and always needing attention. Then, there were salves and washes and ointments to make the case worse and harder to bear. I want to say that you will find none of these annoyances and vexations in the BROOKS APPLIANCE. At least they are reduced to a minimum. This APPLIANCE was made with a view to eliminate, to do away with, just such trouble. I would have been foolish to work half a lifetime, thinking out and perfecting a thing that had no advantage or was not better than scores of other inventions upon the market. In my APPLIANCE you will find the old objectionable features LEFT OUT. You will find it easy to wear. You will scarcely realize you are wearing it. There is no binding, drawing and slipping out of place. It does its work effectively and with comfort to the wearer. I want you to read my book, in which I have taken pains to give full particulars about it. Then, there are a few letters printed in it—selected at random from among hundreds written by men and women who have been cured. You can write these folks and see what they say. If I were you I would see to this matter without waiting. You can put off some things without running much risk, but a rupture is a dangerous proposition to neglect. A rupture is not only bad and serious of itself, but it leads to things infinitely worse. Fill out coupon and mail TODAY. Tomorrow will do, but today is better.

DON'T MAKE THE CHILD WEAR A TRUSS THROUGH LIFE

I Want to Reach the Parents of Every Ruptured Child in the Country.

The Truss Is a Flesh Torturing Invention Fit Only as a Relic of Barbarity.

I want them to know about the Automatic Air Cushion Rupture Appliance that I make for children who are afflicted in this way.



The Brooks Appliance Cured His Rupture. Now He Is as Sound and Whole as If He Had Never Been Ruptured.

My appliance can be put on any child with perfect safety to the little one. For growing children there is nothing better to be had—no matter how much you pay—than my Appliance. I want the parents or others who may have children in their care to understand that there should be no delay in getting proper help for ruptured children.

Every day that the rupture is allowed to go on without the right means of correcting it—just so much harder will it be for the child to get rid of it.

No ruptured child can ever be free from the thought of the rupture and it is not fair to any child not to have an equal chance with other children. No matter what we may wish to think—ruptured children do **not** have an equal chance.

Common trusses do not help.

Thousands of men and women know that from their own experience with such trusses.

But it is not necessary for children to wear harsh, cumbersome, steel trusses any more.

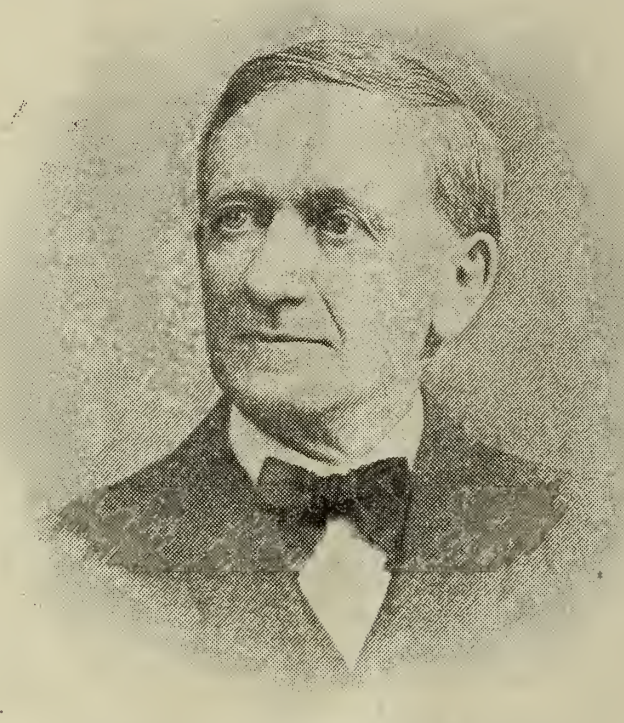
You may have had to wear something like this but don't make your child do it. Give the child something better.

My appliance is better and I want to prove it to you.

I will make an Appliance to the child's measure, send it on TRIAL—put it into your hands to see and use and then you can say whether it is what I claim or not.

The Automatic Air Cushion conforms with every movement of the child; there is an even, gentle pressure which gradually binds the broken parts together—as you would bind a broken limb—and then no matter how much the child jumps, runs, rolls over or falls down—the pressure is kept up just the same—always drawing the parts together.

Write me today and get all the information—send the coupon.



The above is C. E. Brooks of Marshall, Mich, the Inventor, who has been curing rupture for over 30 years. If ruptured write him today.

If you have tried most everything else, come to me. Where others fail is where I have my greatest success. Send attached coupon today and I will send you free my illustrated book on rupture and its cure, showing my Appliance and giving you prices and names of many people who have tried it and were cured. It is instant relief when all others fail. Remember, I use no salves, no harness, no lies.

I send on trial to prove what I say is true. You are the judge and once having seen my illustrated book and read it you will be as enthusiastic as my hundreds of patients whose letters you may also read. Fill out free coupon below and mail today. It's well worth your time whether you try my appliance or not.

Others Failed But The Appliance Cured

C. E. Brooks,
Marshall, Mich.
Dear Sir:—

Your Appliance did all you claim for the little boy and more, for it cured him sound and well. We let him wear it for about a year in all, although it cured him 3 months after he had begun to wear it. We had tried several other remedies and got no relief, and I shall certainly recommend it to friends, for we surely owe it to you.

Yours respectfully,
WM. PATTERSON.

No. 717 S. Main St., Akron, O.

Pennsylvania Man Thankful

Mr. C. E. Brooks,
Marshall, Mich.
Dear Sir:—

Perhaps it will interest you to know that I have been ruptured six years and have always had trouble with it till I got your Appliance. It is very easy to wear, fits neat and snug, and is not in the way at any time, day or night. In fact, at times I did not know I had it on; it just adapted itself to the shape of the body and seemed to be a part of the body, as it clung to the spot, no matter what position I was in.

It would be a veritable God-send to the unfortunates who suffer from rupture if all could procure the Brooks Rupture Appliance and wear it. They would certainly never regret it.

My rupture is now all healed up and nothing ever did it but your Appliance. Whenever the opportunity presents itself I will say a good word for your Appliance, and also the honorable way in which you deal with ruptured people. It is a pleasure to recommend a good thing among your friends or strangers. I am

Yours very sincerely,
JAMES A. BRITTON.

80 Spring St., Bethlehem, Pa.

REMEMBER

I send my Appliance on trial to prove what I say is true. You are to be the judge. Fill out free coupon below and mail today.

TEN REASONS WHY

You Should Send For Brooks' Rupture Appliance.

1. It is absolutely the only Appliance of the kind on the market today, and in it are embodied the principles that inventors have sought after for years.
2. The Appliance for retaining the rupture cannot be thrown out of position.
3. Being an air cushion of soft rubber it clings closely to the body, yet never blisters or causes irritation.
4. Unlike the ordinary so-called pads, used in other trusses, it is not cumbersome or ungainly.
5. It is small, soft and pliable, and positively cannot be detected through the clothing.
6. The soft, pliable bands holding the Appliance do not give one the unpleasant sensation of wearing a harness.
7. There is nothing about it to get foul, and when it becomes soiled it can be washed without injuring it in the least.
8. There are no metal springs in the Appliance to torture one by cutting and bruising the flesh.
9. All of the material of which the Appliances are made is of the very best that money can buy, making it a durable and safe Appliance to wear.
10. My reputation for honesty and fair dealing is so thoroughly established by an experience of over thirty years of dealing with the public, and my prices are so reasonable, my terms so fair, that there certainly should be no hesitancy in sending free coupon today.

Cured at the Age of 76

Mr. C. E. Brooks,
Marshall, Mich.
Dear Sir:—

I began using your Appliance for the cure of rupture (I had a pretty bad case) I think in May, 1905. On November 20, 1905, I quit using it. Since that time I have not needed or used it. I am well of rupture and rank myself among those cured by the Brooks Discovery, which, considering my age, 76 years, I regard as remarkable.

Very sincerely yours,
SAM A. HOOVER.

High Point, N. C.

Child Cured in Four Months

C. E. Brooks,

Dear Sir:—The baby's rupture is altogether cured, thanks to your Appliance, and we are so thankful to you. If we could only have known of it sooner our little boy would not have had to suffer near as much as he did. He wore your brace a little over four months and has not worn it now for six weeks.

Yours very truly,
ANDREW EGGENBERGER.

21 Jansen St., Dubuque, Iowa.

Confederate Veteran Cured

Commerce, Ga., R. F. D. No. 11.
Mr. C. E. Brooks,

Dear Sir:—I am glad to tell you that I am now sound and well and can plough or do any heavy work. I can say your Appliance has effected a permanent cure. Before getting your Appliance I was in a terrible condition and had given up all hope of ever being any better. If it hadn't been for your Appliance I would never have been cured. I am sixty-eight years old and served three years in Eckle's Artillery, Oglethorpe Co. I hope God will reward you for the good you are doing for suffering humanity.

Yours sincerely,
H. D. BANKS.

FREE INFORMATION COUPON

C. E. BROOKS, 1724 State St., Marshall, Mich.

Please send me by mail, in plain wrapper, your illustrated book and full information about your Appliance for the cure of rupture.

Name.....

City.....

R.F.D.....State.....

6.05 Stack
MB

THE AMERICAN BREEDER

A Farmers' Paper, Devoted to the Breeding and Care of Their Live Stock, and the Welfare of Their Families and Homes.

Published Twice a Month. Subscription Price, $1.00 Per Year, or $2.00 for Three Years, Payable in Advance.

Volume VII. *Kansas City, Missouri, February 5, 1914* *Number 2*



American Breeder Camera at Denver Live Stock Show

1—Second in Hereford aged bull class. 2—Percheron mares owned by Zang. 3—Champion Shire stallion and reserve two-year-old Belgian stallion owned by Wolf Bros. 4—First in runabout class. 5—Shorthorn triplets owned by Colorado Agricultural College. 6—First prize Colorado bred aged Percheron stallion. 7—First in yearling Percheron class, owned by Colorado Agricultural College. 8—The only jack shown, owned by Gallagher. 9—Second in three-year-old Belgian class, Wolf Bros. 10—Buffalo and Mexicano. 11—First prize two-year-old mule. 12—Champion Percheron stallion owned by Colorado State Industrial School. 13—Percheron mare owned by Industrial School. 14—Champion Angus bull. 15—Freight team of 10 mules. 16—Swift's six-horse hitch. 17—Pony winner. 18—First prize Colorado bred Percheron. 19—G. A. Hamilton's aged Suffolk stallion. 20—Gentleman's driver. 21—First prize yearling mule. 22—A western scene; fresh from the side show. 23—Suffolk stallion owned by Hamilton.

Graham Publishing Company, Inc., 225 West Twelfth St., Kansas City, Missouri

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WILLIAMSVILLE, SANGAMON COUNTY, ILLINOIS,



have for sale the **best** Imported and American-bred Percheron, Belgian and Shire Stallions at the **lowest prices** and with the **safest guarantee** of any firm in the business. Determine these facts by inspecton.

RESIDENCE AND BARNS IN TOWN.

Taylor & Jones, Box 160, Williamville, Sangamon County, Ill.

Paramount Stock Farm

Home of the International Grand Champion Belgian Stallion Farceur



Breeds and Imports

Percherons, Belgians, Shires.

My November importation is ready for business. My two-year-olds, Percherons and Belgians, are weighing 1,860 to 2,000 lbs.; three-year-olds and over, 1,900 to 2,250 lbs. They are high class and sound. I am making prices that sell. I will pay any man's expense who can say he is disappointed in the size and quality of my horses. 75 head to select from. Write your wants. Send 10 cents in stamps for large picture of the horse parade.

WM. CROWNOVER, Hudson, Iowa.

Robison's Percherons

175 For Sale



Best Collection of *Stallions* and *Mares* ever offered for sale in the West. Come and see me if you mean business.

None Can Undersell Me

J. C. ROBISON, TOWANDA, KAS.



Imported Percherons and Belgians

All horses personally selected direct from the farmers, for good bone and of the best draft type and conformation. All will mature from a ton to 2,300-pound horses. I give a gilt edge guarantee good for two years. I am going to price them down very reasonable. Come and see them and be convinced.

W. H. Richards, :-: Emporia, Kas.

(Barns four blocks from A. T. & S. F. Depot.)



CHAMPION GLACIS
55260 (71473)

RIDGEWOOD STOCK FARM
PERCHERONS

MARES AND FILLIES OF THE HIGHEST TYPE. BOTH IMPORTED AND AMERICAN BRED. BLACK OR GRAY. THE MARES HAVE BEEN BRED TO GLACIS :-: :-:

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107 WEST TENTH STREET, KANSAS CITY, MO.

FARM NINE MILES EAST OF KANSAS CITY





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The World's Greatest Collection of

SHIRE STALLIONS AND MARES PERCHERON STALLIONS AND MARES

BELGIANS AND SUFFOLKS TO SUIT THE MOST CRITICAL BUYERS

Seventh 1913 importation of Shire, Percheron, Belgian and Suffolk stallions arrived October 13. Thirty-five years in the business and not one dissatisfied customer. "Our prices are the lowest." Send for our handsomely illustrated catalogue. Imported Shire and Percheron mares for sale. Mention the American Breeder. Address,

TRUMANS' PIONEER STUD FARM

Bushnell, Illinois



54 Percheron Stallions

We have 54 as good stallions as can be found in any herd from coming 2-year to 5-year-olds. We can sell a better and bigger stallion for the money than any firm in the business. We fully guarantee every stallion. Write us what you want.

BISHOP BROS., TOWANDA, KAS.

Towanda is 22 miles east of Wichita on the Mo. P. Ry.

125 Head of Stallions and Mares

Cheapest Place in America

TO BUY. A DOLLAR SAVED IS TWO DOLLARS EARNED. THIS IS WHAT WE DO FOR YOU.

Home Bred Stallions as low as $300. Imported horses at prices unprecedented. Two-year-olds from 1,650 to 2,000 pounds, with a world of bone and quality.

Forty head of real brood mares; big bone, rugged pairs of matched blacks, grays and bays, all bred and safe in foal to our herd stallion.

We more than meet competition—we create it.

L. R. Wiley, Route 9, Emporia, Kas

For Sale at Riverside Stock Farm

PERCHERON STALLIONS AND JACKS FOR SALE.

One large black Percheron stallion, 9 years old; up-to-date breeder. One dark bay stallion colt, 3 years old; weight 1900 pounds, extra well bred. Two black registered Percheron colts coming 2 years old; very large and good quality. One imported German Coach stallion, dark bay or brown; 8 years old; with great action and style; weight 1500. One standard bred stallion, 16 hands high weight 1280 pounds; registered and sound and has proven himself a great breeder. I also have two black mammoth jacks, 15 to 15.2 heavy weights.

O. L. THISLER & SONS, CHAPMAN, DICKINSON CO., KANSAS

(On the main line of the Union Pacific R. R., 150 miles west of Kansas City, Mo.

PERCHERONS

Prices That Will Profit Early Buyers on Both Stallions and Mares.

The mares range in age from weanlings to aged mares, and the stallions from weanlings to 3-year olds past.

I have been in the business a long time and on account of not being abie to get competent help am compelled to close out. If sold in a bunch I will make the price right.

GEORGE HIRSCHMAN, Pierson, Iowa

THE AMERICAN BREEDER

WITH WHICH IS COMBINED THE STALLION AND JACK NEWS

COPYRIGHT, 1914, BY GRAHAM PUBLISHING COMPANY.

VOLUME 7 KANSAS CITY, FEBRUARY 5, 1914. NUMBER 2.

Horse Breeding in America

Native Stock Valuable for Its Contribution to Stamina and Quality, But Without Draft Crosses Its Weight No Longer Meets Farm Demand. Lesson of the Half Blood Sires.

Fifty years ago a draft horse weighing 1500 or more was a curiosity in nearly any locality in this country. A wonderful improvement has been made since that time, but not nearly as much as could have been. The foundation upon which practically all of our American stock is founded has been the best in some respects. From the female side the range horses have furnished much of the material. No other class of horses in the world have had better health of more constitution.

Under range conditions these horses have been bred for generations in the open. Owing to their small size their value has not been great, but it has furnished excellent material for the "grading up" process. These dams have transmitted to their progeny that health and vigorous constitution which can only be acquired in its fullest state when developed in the open, and through the "survival of the fittest." No other class of horses has been able to perform greater feats under the saddle for long distance riding and enduring the hardships of the early western conditions.

It is true that they were not all of perfect conformation, but a majority of them have been able to stand the test in an excellent manner The better class of western horses in an early day had a wonderful depth of body, affording sufficient heart and lung action and a place to carry the feed. The digestive organs were in good condition. They had not been confined or forced to breathe foul air. Their diet was usually forage, with very little grain. Under ordinary conditions they were more regular breeders than practically any other class of horses. Much has been said about the high bred animals, but every American citizen ought to be proud of the vigor and constitution of these little horses of the plains.

These little mares were excellent milkers. When given plenty of range to graze on, the progeny developed rapidly. It frequenty has been said that a pony will be nearly as large at two years of age as at maturity. It is this early start that has had much to do with the quick development in horse stock. This is a point that every breeder of live stock must remember, if he wishes to be successful in the production of outstanding individuals.

The purpose for which live stock is intended should have much to do with the type and size. This broad, fertile land of ours calls for large horses. The tilling of our larger farms demands larger machinery. This demand was felt to a great extent in Illinois during our early horse improvement. Other states made the same discovery, but the draft horse demand come slow. The reason is very simple; only a few men knew what a good draft horse should look like. A lot of inferior stallions were distributed throughout the country. Any horse that had size could find a ready market, no matter how much blemishes or how badly formed he might be.

We were glad to get the draft horses that were rejects in Europe. Practically anything in the way of a big stallion that could be purchased cheaply was brought to this country. When we think how many stallions of this sort were used, we realize how much we owe to the little western mares for the excellent horses in this country. They were a very sound lot of animals and they transmitted their soundness to the progeny to a remarkable degree. A great many sections where those nondescript draft stallions were introduced, are yet opposed to draft horses. This is especially true in the southern states. In many western sections where roughness has been scarce and the progeny has been developed on limited rations, the horse stock has not developed satisfactorily. It can be frequently heard to this day in short grass sections that a big horse will run himself to death trying to get enough to eat.

There are men yet living who will never receive forgiveness for selling a lot of nondescript draft horses to companies for many times more than they were worth. A big Shanghai horse was decorated with yarn and ribbon and had an abundance of fat, and the definiencies in his feet were supplied with iron. Ginger and hot air used on this kind has done much to retard the distribution of good draft stallions. It was very common to see a company of mare owners pay from $3,000 to $5,000 for a stallion that would have been dear at any price. They had never had an opportunity to study draft horse conformation, but they wanted to improve their horses and would obligate themselves on this account.

This is one part of animal production that we have never been able to understand. These men would enter an obligation, usually signing a joint note making each one responsible for the entire amount. An individual in the community may have owned a better sire in every respect, yet not a bit of support would these men give to the individual who had the nerve to buy an outstanding sire on his own account and stand it for public service.

After all, the company plan has been of some value in introducing better blood throughout the country; even with an inferior stallion, lots of colts have been produced which have been found worth while after the tests has been applied. This lesson has been received in practically every section of the United States. A few good, big, strong work horses have made a demand for the use of better sires. This has all required time, but a greater improvement in sires has been brought about in this country during the last decade than in nearly all of the other years combined.

Horse improvement has now reached a stage which requires that the owners of mares become better acquainted with breeding conditions. In one community an excellent, pure bred draft stallion made several seasons; his colts were a marked improvement. In fact, it was a very common thing for his colts to be almost as large when one year of age as their mothers. This horse made such a reputation that a lot of his colts, out of scrub mares, were kept for stallions. About all that was necessary to get business for a stallion sired by this old horse was to name that fact. Great results were expected from using one of these colts. The owner of the mares in that community had not given this subject enough thought. They were greatly disappointed when the next year's crop of colts began to appear in all the different forms known to horse stock. A few good ones resulted, but most of them very inferior. They did not look alike. Some would be little; others large, out of proportion, badly shaped, and so on. They did not breed true to type. A costly lesson was soon learned. Several of the stallions kept out of this old horse did fairly well, but the dams of all such had several crosses of draft blood. The owners of the mares which patronized these mongrel stallions thought they had received an opportunity to get a lot of cheap colts. These stallions did not cost much money and were stood at from $5.00 to $10.00 for the service fee, but those who patronized them learned that those mongrel sires would not breed true to type, as the old pure bred horse had formerly done.

If some mare owners in that district had purchased a few good mares of the same breed and bred them to this old horse, then there would have been plenty of good stallions in that section to breed on, but a better plan would have been for these mare owners to have said to the owner of this old horse, "you have done us a great service and we appreciate it, now we want you to go and find a better sire, regardless of cost, and we will breed our fillies out of the old horse to your new stallion." These men should have used their best efforts in securing just as many of the good mares in that section of the country for this better sire that was to come. These men seemed to have forgotten that a public spirited citizen was in their midst; one who had not hesitated to spend his money for a good sire. After the next crop of colts came a great improvement could have been noticed. They would have had three-fourths of that particular blood. After a few top crosses of this kind, uniformly good draft horses could have been bred.

But this was not the case in that district. These mare owners were short-sighted; they saw an opportunity to get their mares bred for little of nothing, and in all probability the owners of these scrub sires would bring them right to their very barn and breed their mares without any additional cost. They never stopped to think there would be any future. They just wanted their mares bred to something that would not cost much money. But after the colts from these scrub sires began to materialize, and were placed on the market, the mare owners discovered their mistake in dollars and cents. Just why a lot of intelligent men can be talked into using an inferior sire, because he stands cheap is more than we can understand. It costs about $150 to raise a four-year-old gelding and have it ready to be placed on the market, and half of the horses sold at the leading horse markets of this age are sold for less than $150. Nearly all of these cheap ones are sired by some nondescript stallion that should have been castrated before he had done so much damage to the country. A colt from a good sire, well developed, should be worth at least $150 at one year of age. The owners of mares should pay more attention to the selection of a good sire, than to any other part of his farm or live stock questions. There is more money invested in a mare than in any other female on the farm. There is more clear profit in a good mare than in any other animal on the place when properly handled.

The excuse usually made when a mongrel sire is used is that an all purpose horse is wanted. The all purpose horse in all of the leading horse markets is found in greater numbers than in all of the other special classes of geldings. Even when the best is sought, too many of the all purpose horses result. The market is flooded with the so-called all purpose horse. If the owners of mares will mate them with good outstanding individuals to fill some particular market demand, there will still be enough all purpose horses. The high prices are paid for those which fill special qualifications.

In the mating of mares another feature should be considered besides that of producing geldings for the market. In case the progeny should be a mare, most breeders should want something fit to keep and be proud of. A mare

Stallion Show for Belgians Soon

In our issue of March 5 we will publish the photographs of the mature Belgian stallions entered in the "American Breeder Stallion Show." This is the class for mature stallions only, and every man who owns a good Belgian should do his part to make class bring out the finest lot of photographs we have ever printed. In order to have an entry in this show the photograph of stallion, and the coupon filled out must absolutely be in this office by February 28. The entry coupon is on another page. Please read it carefully—especially the suggestions for getting a good photo. There is no time to lose, for the Belgian show must be a good one.

raised on the farm and handled from a colt up, very often finds itself one of the work horses and in the near future she will be a subject for maternity and she should be a good one. Small farmers should pay particular attention to this and make the raising of geldings a secondary consideration. When a good, young mare is produced she should be kept on the farm and some of the older ones disposed of. By this method the horse stock will be kept up with very little expense.

On the average farm in this country there are numerous ways of using horses. When a mare is found that will work anywhere and is accustomed to all sights, and any one of the family can use her, she is a mighty valuable piece of property, and the chances are that she will stay in that home until her usefulness is over. On that same farm the young mares probably are sold, mank of them going in to the larger cities. We must admit that it is a hard task to give up some good old mare that has probably helped to raise a family, but who knows but that one of the young mares would do just as well and be kept where she would do the most good. By starting them early and working them lightly, with a ilttle care, they soon become accustomed to the same work. When a mare gets to be 14 years of age her breeding usefulness is usually very limited. Her teeth begin to get bad, which means more nutrition and less service. But regardless of the age at which mares are to be disposed of, the best ones make the most profit. It is about as expensive to raise an inferior mongrel as it is a good one.

The writer recently saw an excellent example of this. Two mares were brought to a breeding barn; there seemed to be very little difference in the mares. They both had colts by their side. One of them was bred to an excellent sire and the other had a colt by a little mongrel stallion. The good colt was worth $100 at weaning time; the other one may be worth $100 at maturity, providing she is well kept and no accident occurs. This is only a part of the story. There were several men present who wanted to buy the good one, but not one of the entire audience looked at the other one. Buyers are continuously searching for good ones, but those who are induced to make a bid on the cheap ones must have an immediate place for it, because they do not wish to spend any money on it. There is not enough value in its hide to perpare for market.

In conversation with the average farmer the first objection made is that a small farmer cannot raise good horses; that it must all be left to those who have plenty of money and wish to make a study of the business. It perhaps never occurred to them that nearly all of the good horses that are produced come from small farmers on both sides of the water. The farmer that works his own mares is in a better position to raise good horses than those who are forced to depend on hired help. The average small farmer can well afford to have one or two extra mares to do his work with. This will give him an opportunity to let a mare rest at foaling time. If another one should be a little run down in condition, turn her out. A good mare will pay her way and net a nice revenue without doing any labor. If the mares are not worked so hard they will produce with more regularity and raise better colts.

But the most important thing for farmers to consider in horse breeding is to have good horses, because it is the basis of our farm and live stock industry. Without having sufficient horse power a farm cannot be properly tilled. By having good, big, strong brood mares a better crop can be raised and sold for more money and the farm kept in a better condition. A man who drives a good, big, team to town has a basis of credit that could not easily be acquired any other way. The man who is a good provider and kind to his horses impresses upon even a new acquaintance, a part of his character.

The little western mare has been very useful, but she no longer meets the requirement for size. Many excellent herds of pure bred animals can be found in this country, from which purchases can be made. Many sections are favorably known because they have good horses. This has all been brought about by the selection of better sires and the use of plenty of feed. Good feed is just as necessary as good blood. Some breeders have been disappointed in their colts because they have not given them sufficient feed; neither have they been regular with their care. At the leading horse markets one can see a lot of undersized horses that never have been matured as nature intended because they have not received enough nutrition. Many valuable sires have received bad reputations because the owners expected that good blood could be developed on scant rations. Whether it is a road horse or a drafter, feed and care are just as necessary as blood lines. Never before in the history of this country have so many farmers become interested in their farm horses, and especially in the use of better sires. Mongrel sires are going out of date. Men have learned by costly experience that the cheap, inferior sire is very expensive at any price; that a good well-bred stallion, sound, and with the right kind of conformation, having had many generations of good blood behind him, will be the best for them, regardless of price. Whether it be a drafter or a light horse, good blood and plenty of feed must be used.

SORE SHOULDERS ON HORSES.

To the American Breeder: With the advent of spring work comes shoulder and foot troubles in horses. Young animals, especially, are prone to collar bruises, on account of jumping around, uneven pulling and jerking, which offsets the effect of the best setting collar.

First of all, remember prevention is the easiest solution of the problem. The old-fashioned method of bathing the shoulders with an oak bark solution, alternating with cold water, several weeks prior to working, thereby hardening and "tanning" the skin, was a good one. This, of course, is a tedious job on a big ranch with many horses, but will repay on colts.

A large collar is just as bad as a light one, and be careful that it is not lumpy. A firm, snug fitting collar, with good pads, of course, is best. As a substitute for the oak bark, try tannic acid in alcohol or glycerine, in a 10 to 20 per cent solution. Rub well several times a day, and alternate with a salt water lotion. Begin work gradually, and should the sholders get raw and infected, the advice of your local veterinarian may prove valuable.—E. T. Baker, Idaho Experiment Station.

MINNESOTA ADVERTISER GETS USUAL RESULTS.

To the American Breeder:—Have had good call for horses since I started my ad in your paper. Have made several satisfactory sales and am well pleased with the outlook. The winter so far has been ideal and the horses are doing well out on the pastures.—C. G. Anderson, Renville County, Minnesota.

IT HUNTS UP THE BUYER.

To the American Breeder:—The season of 1913 we advertised in your paper and got 27 answers through which I sold my two jacks to a man in Nebraska. I know I would never have found that man so far off through anything else. Will advertise again if I want to sell something again.—Frank Busch, Franklin County, Mo.

Which is Barren; Stallion or Mares?

One of the great problems in the mind of many men is why a particular mare does not get with foal. In nearly every case the stallion is blamed, and frequently, of course, the fault is with the stallion or his management. When this is the case it can easily be detected. At the average discharge of a stallion there are millions of spermatozoa when the discharge is complete and the stallion is performing all of his regular functions. When this semen is examined under a microscope there can be seen (if the stallion is fertile) a lot of little moving objects that look like "wiggle tails" in a rain barrel. If that particular service is not complete the movement of these "wiggle tails" is not so active. There may be a few moving and a large number may be seen which are dead. In this case the service would be considered of exceedingly doubtful value, but in most cases when a service is not fertile no spermatozoa of any kind can be seen. In the discharge from a barren service, when looking through the microscope, there will be seen in most cases, many yellowish, round-like objects. It requires only one active spermatodoa (sperm cell) to fertilize the ovum (egg) of the mare if she is in a normal, healthy condition.

When the microscope is used, and the spermatozoa show good movement, and the semen enters the uterus, it is then up to the mare to be in a proper condition, if she is to get with foal. It is not necessary to wait until the next heat period, or a year, to see if the mare will deliver a foal to know whether or not the stallion is doing his part. The semen can be examined at the time of service and one can know whether there is a chance for the mare to fertilize or not. Stallions which have had too much service, or are out of condition, may make a regular discharge so far as the naked eye can detect, yet not discharge any spermatozoa. Some stallions discharge spermatozoa at one service and the next may not contain any. This can only be detected with a microscope.

Any breeder can soon learn to operate a microscope. This is an excellent method of detecting any derangement that might be coming on the sire. There are some breeders that do not believe there is anything in the microscope because sometimes mares produce colts when the microscope shows a shy breeding stallion. Some shy breeding stallions may skip for a day or a week, or longer, at a time. They may also serve several mares in one day and get the last one with foal and occasionally fertilize a shy breeding mare, but the only way to tell whether a stallion is a regular producer of spermatozoa is by making regular use of the microscope. Many breeders are using this method at every service, and we have printed many letters telling of the help it has been. Here are some more of the same sort:

To the American Breeder:—I would say that the microscope is the most valuable in convincing mare owners that your horse is sure, because there is no doubt about it, as they see it with their own eyes, which is the best evidence they can get.—Henry J. Stuhr, Pottawattamie County, Iowa.

To the American Breeder:—In regard to the microscope will say as long as I am in the stallion business I will not do without it at any price, for it is the only way you can show the mare owners that the trouble is in the condition of the mare that she does not settle; and it also shows just what condition your own stock is in.—J. H. Walker, Cooke County, Texas.

To the American Breeder:—I would not think of standing horse or jack without a microscope and that is the only way to convince mare owners that your horse or jack are sure. If I could not get another one would not part with mine at any price, as long as I am in the business.—J. F. Hendrix, Livingston County, Mo.

To the American Breeder:—I would not sell my microscope for anything if I could not get another. The Microscope is one of the best means of advertising and convincing mare owners that your stallion or jack is sure.—Thos. S. Young, Nodaway County, Mo.

To the American Breeder:—No one handling a stallion or jack should be without a microscope. When you have a microscope to shew your patrons there is no complaint that your horse or jack is not sure. By using it (when a service is made that is not good) you know it right then. I would not be without one for double what it costs if I could not get another.—Geo. E. Hineman, Lane County, Kans.

To the American Breeder:—By showing my customers the semen through the microscope I got them to let me use the capsule system when they wouldn't before. I would not do without one for three times what they cost. I never hear anybody say my stock are not breeders.—W. A. Mathes, Linn County, Mo.

To the American Breeder:—I don't think any breeder can afford to be without a microscope. For some reason mares are the most uncertain breeders of any brutes kept on a farm, and that being the case the microscope is the only way of really testing the horse. A horse may be in the pink of condition and yet not settle the mares.

My jack had distemper last spring and the microscope was the first to tell me that something was wrong. I bred three mares from one service and tested the semen and found very little movement in the few cells that showed. Two mares were my own and one my neighbors. We thought we would try him the next day and nothing showed at all, by next day he showed a well developed case of distemper. We then bred the mares to the horse and they are all with foal, and had it not been for the microscope I would have missed them as it was very late in the season, and I would now be wondering why it happened.

I have too many mares of my own to breed to be without a microscope, besides my customers like to know what they are doing. I have had mine two years and is just as good as ever and has paid for itself a number of times.—E. G. Tharp, Comanche County, Kans.

A PROFESSIONAL HORSEMAN'S PLANS.

To the American Breeder:—The American Breeder has reached me O. K., and I wish to thank you for starting the subscription with the number I requested. Outside of the wealth of solid reading, I was impressed with the satisfaction of your advertisers. With that idea came the idea that I might profit by an ad in your paper.

While there are two times to improve a horse—before birth by scientific breeding, and after birth by scientific training. I have until recently interested myself solely with the lat-



KANSAS CITY, MO., CLASS No. 27, GRAHAM SCIENTIFIC BREEDING SCHOOL, JANUARY 5-10, 1914.

1—F. B. Graham, Kansas City, Mo. 2—Joe Freml, Pender, Neb. 3—L. C. McMurray, Glen Falls, N. Y. 4—Elmer Frey, Pender, Neb. 5—J. E. Downing, Whiteside, Mo. 6—Nels A. Anderson, Farragut, Ia. 7—J. C. Boyles, Okeene, Okla. 8—J. A. Puntenney, Granada, Colo. 9—Harry Dreher, Columbus, Neb. 10—J. F. Wood, Alma, Ark. 11—Felix Weir, Pleasant Plains, Ill. 12—Geo. W. Martin, Colony, Kans., R. 3. 13—Harry McCullough, Fayette, Mo. 14—Adam J. Esser, Blackwater, Mo. 15—Lew Jones, Alma, Kans. R. 1. 16—Edward Stump, Nappanee, Ind. 17—Oscar Martens, Prole, Ia. 18—S. P. White, Oakland, Ia. 19—Wm. T. Shaffer, Litchfield, Neb. 20—Louis A. Stapf, Mascoutah, Ill. 21—Lewis B. Tietze, Oakland, Mo. 22—W. H. Bayless, Blue Mound, Kans. 23—E. R. Shaw, Onedia, Ill. 24—Dan Kelly, New Cambria, Kans. 25—G. W. Husted, Lawrence, Kans. 26—Geo. Miller, Montrose, Colo. 27—Edward Kloeckler, Temple, Okla. 28—Ivan Shackleford, White Hall, Ill. 29—M. B. Koffroth, Richwood, Ohio. 30—J. W. Kramer, Longford, Kans. 31—L. E. Martz, Rockford, Ohio. 32—Dick Van Boxstael, Lessines, Belgium. 33—J. J. Bonnstetter, Corwith, Ia. 34—W. H. Holmes, Foster, Neb. 35—Prof. V. O. Cudd, 225 W. 12th St., Kansas City, Mo. 36—W. F. Burton, Afton, Wyo. 37—C. G. Simpson, Quinion, N. Dak. 38—F. B. Ferguson, Arapahoe, Nebr. 39—Jerry Summers, Rocky Ford, Colo. R. 3. 40—F. L. Pryor, Glasgow, Mo. 41—B. H. Hunter, Earlsboro, Okla. R. 1. 42—W. H. Colling, Winfield, Kans. 43—Roy Forgsgren, Brigham, Utah. 44—J. Jacob Buchta, Russellville, Mo. 45—W. A. Mathis, Meadville, Mo. 46—W. H. Williams, Goldsmith, Ind. 47—Joe Kejr, Dorrance, Kans. 48—Chas. Poe, Orrick, Mo. 49—Lem Loflen, Milo, Mo. 50—Jay D. Patton, St. Clairsville, Ohio. R. 1. 51—J. H. McKinney, Eudora, Kans. R. 1. 52—T. T. J. Parker, Laddonia, Mo. 53—Albert Rudolff, Lynch, Neb. 54—Wm. Hoehn, Eagle Lake, Minn. 55—E. J. Bliss, Bloomington, Kans. 56—Corey Lee Sabin, Bagley, Ia. 57—Delbert Archer, St. Charles, Ia. 58—D. W. Newman, Rector, Ark. 59—J. E. Friesen, Moundridge, Kans. 60—Lloyd McFadin, Ottawa, Kans. 61—C. A. Hertel, Redbluff, Tex. 62—Jno. Hesse, Dunkerton, Ia. Box 62. 63—Hugh M. Cottier, Mound City, Mo. 64—A. W. Blue, Claypool, Ind. 65—Snowden Hunt, Liberty, Mo. 66—R. A. Fitzgerald, Bucyrus, Kans. 67—Will Schrepel, Ellinwood, Kans. 68—Frank Laskie, Bucyrus, Kans. 69—H. K. Eggers, Byron, Neb. 70—C. W. Coffy, Louisville, Ohio. 71—Guy W. Armstrong, Galesburg, Ill. 72—Raymond G. Green, Gibson City, Ill. 73—Charlie Baldwin, Ada, Kans. 74—Lee H. Ingraham, Fort Smith, Ark. 75—E. M. Griffin, Atlantic, Ia.

ter. Since I was 15 I have followed training horses for a living. My idea for the future is this: to study the improvement of the horse before birth as I have studied the improvement after. I want to take the course in scientific breeding, get with some breeding establishment that can use a man to care for the breeding during that season and care for the training of the young stock the rest of the year.

I intend to attend the first session of the Graham Scientific Breeding School if possible. I have been handling an outlawed stallion here since November. If nothing unexpected happens I shall be able to turn him in, gentle and reliable, and be at the February term, if not then at the next term at the latest.—Elliott S. Humphrey, Kings County, New York.

HORSE BREEDERS RE-ELECT OFFICERS.

At the annual meeting of the Kansas Horse Breeders' Association, held the first week in January, all officers were re-elected as follows: Hon. Geo. B. Ross, of Sterling, president; Dr. C. W. McCampbell, secretary-treasurer, and B. P. Waggener, Atchison; A. E. Smith, Lawrence; Arthur Colegrove, Girard; J. H. Lee, Harveyville; W. H. Rhoades, Manhattan; John Evans, Asherville; A. R. Cantrell, Sterling; J. C. Robison, Towanda, vice-presidents.

To the American Breeder: Enclosed you will find $4.00 to pay for ad in your paper January 5. This one ad brought me 24 inquiries and they are still coming, so you may discontinue the ad for the present. A little later I will do some more advertising with you.—L. M. Tuck, Polk County, Mo.

HOW ABOUT CAPSULE BREEDING?

One of our Pennsylvania readers informs us that he is not interested in capsule breeding and he further states that we are giving too much space to that subject. During the last few years about three such complaints have been received. We appreciate this information. This reader is advising us honestly and wishes the American Breeder success.

We have no fault to find with the frankness of this man's statement. He is a good friend of ours, and if there are any others who feel this way about it, we would like to hear from them. We want all our readers to feel perfectly free to give us advice. We are conducting a publication for the enlightenment of our readers. We want to help them. We have given much space to modern breeding methods of all kinds. Capsule breeding was practically introduced by this publication. A few men had tried capsules years ago, but the early plan was not very successful. It had been demonstrated that it could be done, but it needed some improvement.

From the very start of our capsule breeding publicity, we received hundreds of questions asking for more information. We answered those and the subject has been a live one ever since. Breeders have been using our method for several years. An army of men testifies to its success. A majority of those who have tried it have greatly increased the number of mares and the per cent of foals, thereby increasing their own revenue, and they have fertilized a lot of mares that never could have been made producers without some assistance. This is a benefit to a customer and the community in which they reside.

During the last quarter of a century hundreds of new systems of doing other things have been introduced and found successful to the extent that they are accepted without any question. During the last few years horse breeders have been making some improvements. Is there any reason that horse breeders should not keep abreast of the times? It is true that some of the things advocated by this publication are far in advance of the time-worn theories of many of the older breeders who have been in actual practice for a generation.

There is only one way that these men can be convinced and that is by actual results. Typhoid fever has long been one of our most dreaded diseases, because of the long, severe (and often fatal) sickness and the many sources of infection. Last year 80,000 soldiers in the United States army were vaccinated against typhoid fever and less than a half dozen of these soldiers contracted that disease. These men were forced to drink water in all kinds of places, and associate with all classes of people and in many climates in close proximity to this infection. What intelligent man can say that an improvement has not been made? There are hundreds of new things that have been introduced with practically the same success.

There have been failures in the capsule system the same as has been noted in practically every other line of endeavor. Two men may have received their instructions in exactly the same manner. One might be an expert and the other a failure. What should you condemn, the man who had failed or the system through which the other man succeeded?

The method of capsule breeding is very simple. If the semen is taken from a healthy mare and transferred to the uterus of another mare in a naturally healthy condition and maintained at the proper temperature by an operator who is clean with his work, it is an improvement over the natural service. Only one single sperm cell of the horse is required to fertilize the mare. There are countless numbers of these cells discharged from the sire at a normal service; the balance are lost. The discharge can be divided so as effectively to breed a very large number of mares. The question is up to the breeder himself. Will he learn how to do this properly? It has been demonstrated beyond a question of doubt that an ordinary breeder can learn to use capsules successfully.

We should like to hear from our readers over the country as to the future of capsule breeding. We shall be guided by this information. Enough of them have had an opportunity to know whether it is a benefit or not. We have felt that it was our duty to help the breeders and help their customers. We believe there are thousands of good, strong, healthy colts in the country now that never could have been here had it not been for the introduction of the capsule method. This alone must be of some value to the country during the present shortage of good horses. There are some complaints from the owners of inferior breeding stock. A good sire can breed more mares during the short, busy breeding season, which detracts from the patronage of the inferior scrubs. In hundreds of communities colts have been produced double the value of those which would have been produced had it not been for the capsule system.

We invite a general discussion as to the merits of the capsule system of breeding as taught by the American Breeder. We want to hear from those who have used the capsule system.

American Breeder Camera at Denver Live Stock Show



1.—Suffolk stallion, shown by G. A. Hamilton, although this breed was not given a classification.



2—Champion Belgian stallion shown by Wolf Bros.



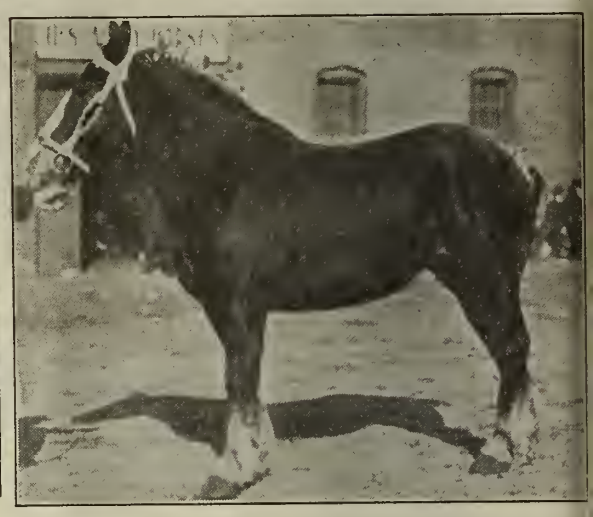
3—Hilliard & Brunton's third prize two-year-old Belgian.



4—High class live stock, all right, but not catalogued.



5—One of the few saddle horses on exhibition.



6—Brunton & Hilliard's champion Belgian mare.



7—Winding and unwinding with a 10-mule team.



8—An utility gait under the saddle, for range or anywhere else.



9—Wolf Bros.' first prize two-year-old Percheron



10—Second price two-year-old Belgian, owned by Wolf Bros.



11—Stallion from the only Suffolk exhibit on the grounds, belonging to G. A. Hamilton.



12—A little of the "Wild West"—for exhibition purposes only.

Last Term This Season
OF
The Horse Breeding School
--- Will Be March 2 to 7 ---

Breeders with money invested in the business cannot spend a week's time and their tuition fee to better advantage. Fathers and mothers need not be afraid to send their boys. Ask any graduate.

It's the greatest opportunity offered anywhere to make yourself an expert breeder, to learn to avoid the points of the breeding business that cause so much loss to stallion and jack owners every season. All of the instruction is practical and everything taught is demonstrated whenever possible. All instructors but two are expert post-graduate veterinarians doing educational work recognized by the United States Government.



PHOTOGRAPH TAKEN IN LECTURE ROOM DURING JANUARY TERM.

SOME OF THE SCHOOL'S WORK, AND SUBJECTS TAUGHT.

Dissecting Mares, Anatomy of the Male and Female Organs—Physiology of the Generative Organs—Cells—Infection—Breeding Questions—Breeding Instruments—Foaling—Scientific Mating—Horse Judging—Mule Judging—Barren Mares—Barren Stallions—Abnormal Conditions—Diseases of the Foal and Fetus—Diseases of the Male and Female—Contagious Abortion—Feeding—Testing Breeding Stock—Determining a Mare's Breeding Condition—Buying Breeding Stock—Hereditary Defects—Horse Breeding—Rectal Examinations for Abnormal or Diseased Conditions; also for telling whether a mare is in foal or not—Getting the Semen—Inserting Capsules, etc.

EQUIPMENT AND EXPENSES.

The school has its regularly equipped building, which is just north of Convention Hall, Kansas City, Mo. In the lecture room of this building are numerous charts, stereopticon apparatus for showing pictures and illustrations during the lectures, all kinds of breeding appliances and other equipment necessary for instruction in all the latest methods in horse breeding. A veterinary hospital is utilized in the dissecting work and the barns of dealers in mules and horses in the lectures on types, judging, etc.

Accommodations for all students will be arranged for by the school authorities without charge. They have reserved rooms and board at moderate rate—from $1 to $1.25 a day—sufficient to provide quarters for all who come.

Remember the date and prepare to be here next term. When you get here take Observation Park street car at Union Depot; get off at 12th street and walk one block east. **Tuition is $25, which entitles all students to a free return privilege for life.** For other information address

The GRAHAM SCIENTIFIC BREEDING SCHOOL
225 West Twelfth St., Kansas City, Mo.

ABOUT HORSE LOSSES IN ILLINOIS.

To the American Breeder:—Although it is said that "cornstalk or fodder disease," is what is killing horses around here, some die that never eat fodder. I think there has been one hundred or more horses that have died within ten miles of here (Marina) since September 1, 1913, and still there are sick and dying. Symptoms are a little like colic at first, but they soon bloat so it hurts them to lie down and they die, often on their feet. They generally last 24 to 36 hours. Some die during the night, without the owner knowing anything is wrong. The most popular treatment is warm water injections with a teaspoonful of salt to the gallon of water. Drench with one quart of warm lard, with a good stimulant. Some use Rollies Liniment, four tablespoonfuls in one pint of whiskey, used as drench, in one quart of warm water. Some drench with a warm salt water and inject warm water, and then put good warm blankets on them, and ride them up and down the road until they get up a sweat and get them to empty out good. They give only warm water.

Be careful and don't let them cool off too quick. They all bloat and the large bowels become paralyzed and are packed tight from fifteen inches to four feet. We have opened a great many and find the stomach clean and empty. But the colon always full. Some of our veterinarians use hypodermic injections of a very powerful medicine. One man uses esserine. I think, also, they puncture the colon or large bowels. Is it safe to puncture the bowels? Most of them die that I have seen opened by trochar. The main treatment has been to get the bowels to move and stimulate the horse to a sweat. Must not lose any time. We use a rubber hose five feet long with a funnel in one end, elevated like a fountain syringe, and work the hose as far up as you can.—A. J. Robnett, Fayette County, Ill.

Hotel Convention

12th and Broadway, Kansas City Mo. Large, airy rooms, good beds. Special rates to students of the Graham Scientific Breeding School. Two persons in one full bed, 35c per day each. One person in a full bed, 60c per day. Good restaurants in connection and nearby. Take Observation Park street car from in front of Union Depot direct to our corner. Only a few minutes' walk to the school building

Be an Auctioneer

Travel over the country and make big money. No other profession can be learned so quickly, that will pay as big wages. Write today for big, free catalogue of Home Study Course, as well as the Actual Practice School.

Next Term Opens April 6.

MISSOURI AUCTION SCHOOL,

Largest in the World.

W. B. Carpenter, President.

14th & Grand Ave., Kansas City, Mo.

Diseases Incident to Shipping

By the time this issue reaches our readers, many breeders will be contemplating new purchases of animals, and we believe a few hints at this time on the care and management of stock during shipment will not be amiss. There are numerous ailments that are contracted during the period of transportation that may be avoided by exercising a little forethought.

The greater number of these ailments come about through derangement either of the digestive or respiratory organs. The first trouble can usually be avoided by making a decided cut in the grain ration before loading on the car, and perhaps preferably omitting the meal just previous to shipping. An animal while being shipped, unless accustomed to it, suffers such a disturbance through fright that there is liable to be some form of indigestion result.

This is liable to provoke a serious case of colic or inflammation of the sensitive structures of the feet (laminitis) which latter affection is closely associated with disturbances in digestion.

Again it is always well to look carefully to ventilation in a closed car and see that no draughts of cold air are permitted to strike the animal, particularly while the train is in motion. The car should not be kept closed so close as to cause the animal to break out in sweat. The openings should be away from the wind and usually preferably in the rear end of the car. It is a good plan to provide one's self with an extra supply of burlap which may be tacked over openings in single layers, which will permit an ingress of fresh air and at the same time will check the force of draughts. An animal should not be kept standing too long at a time on the cars and if not inclined to lie down should be unloaded at the end of 24 hours and be given an opportunity to rest.

The major part of the difficulties that come from shipping, if the animal is started right, develop either from exposure to varying air currents or are the results of coming in contact with some infectious disease. The first usually assumes the form of a catarrhal condition of the nasal passages, a sore throat (pharyngities), involvment of the bronchial tubes or possibly pneumonia.

The first is evidenced by a watery discharge from the nostrils at first, which is followed by an admixture of mucous and pus. In the second (pharyngitis), the animal shows difficulty in swallowing, both water and solid food, and there is an inclination for water to be returned through the nose when attempting to drink. In the case of either bronchitis or pneumonia there is fever, ranging from 104 to 106 degrees. The animal breathes more rapidly than usual and is inclined to be off its appetite. These more alarming conditions necessitate the assistance of a competent veterinarian, but the severity of the attack leads to grave complications or possible fatality.

The infectious diseases are of the nature of strangles, or what is commonly known as colt distemper (a disease usually affecting young or immature animals), infectious pharyngitis, or influenza. The infectious diseases are usually contracted at the unloading stations, particularly in large cities where diseases of this nature abound. If one cannot secure a barn where such diseases might be avoided, it is perhaps best to permit the animal to rest in the car. The great majority of these infectious diseases may be prevented by proper vaccination previous to shipment, and it is always advisable to have this done. Strangles is characterized by a catarrhal discharge from the nostrils, followed by abscesses usually about the throat.

Infectious pharyngitis not only gives rise to a very severe sore throat but may result in abscess formation. Influenza when not complicated results in high fever for a few days, swollen limbs and frequently great disturbances of the eyes. All of these infectious diseases are to be avoided if possible, for the reason that there may be impairment of the animal's wind, as a sequel of the attack, and the horse be left a chronic roarer.

It is so easy for a simple disease to become complicated with one positively serious, in animals undergoing transportation, that it behooves the shipper to be extremely cautious.

USED A GOOD CUT OF HIS HORSE.

To the American Breeder:—I am enclosing, herewith, a check for $9.50. I received about 30 inquiries from the ad which I had in one issue of your paper. I have now disposed of my horse and I am now convinced that the American Breeder is the paper in which to get the best results from advertising. Please send me the cut which I furnished for the paper, by return mail, as I have promised it to the man who has bought the horse. —J. C. Stegman, Washington County, Kans.

SAVE EVERY COPY OF THE AMERICAN BREEDER

Hundreds of our readers have written us that they are doing this, that the many articles and the Questions and Answers thus preserved make them a breeder's reference library they could not get any other way "for love or money."

HERE IS THE BEST WAY

to have such a store of information where it can always be reached.

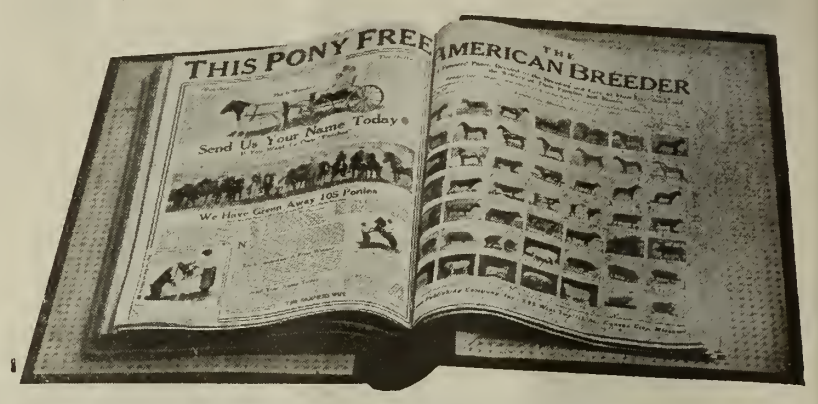


Photo of Binder (now holding 50 copies) That Has Been in Daily Use in The American Breeder Office for Two Years.

Send to us for one of the American Breeder binders pictured above. We had two of these binders made for our own use two years ago, and the one shown in the photograph has been in daily use ever since. When the photo was taken it contained 50 copies of the American Breeder, with room for many more. The covers of the binder project beyond the edges of the pages and protect them perfectly. A minute's time (a child can do it) is all that is needed to fasten each paper securely in its place in the binder.

We are having a special lot of these binders made up for our subscribers and will send them, **by Parcels Post, Prepaid, at $1.00 each.** Address orders to

GRAHAM PUBLISHING CO., 225 WEST 12TH ST., KANSAS CITY, MO.

STALLION SERVICE RECORD BOOK

This book has 200 pages like the specimen page in this ad. It is substantially bound with a good, strong waterproof cover. It has 20 index pages for keeping the owners' names in alphabetical order so that any name or mare can be found quickly.

The breeding contract at the bottom is the strongest possible kind of a note. It is a big help in making collections, as nearly every state has a law for the collection of labor debts without exemption, and this is a contract to pay for services rendered. Before it is signed run a pencil through two of the lines in the contract, leaving the line that makes the kind of a contract you want. Many will sign a contract who would refuse to give a note.

This book has a calendar and a gestation table. It can be used for several sires without carrying more than one book. This is the most complete and up-to-date service record book printed. It is a nice size and can be carried easily in any pocket. Every breeder should have one. After improving it for several years, the result is this most satisfactory book. A complete new edition is just out. Although this new book has double the capacity of those offered heretofore, it sells at the old price. It is not bulky as it carries no advertising or other unnecessary matter. It will be the standard record book used by the leading breeders.

If you are not satisfied with the book or do not consider it the best and cheapest on the market, return it and your money will be cheerfully refunded. The price is 50 cents; six for $2.75; postage prepaid. Send all orders to the

GRAHAM PUBLISHING CO.,
225 West 12th Street,
Kansas City, Mo.

Sire .....

Mare ..... Color..... Age.....

Marks. . .....

Womb {Closed / Healthy / Loose} Height. ..... Colt {Yes. / No.}

Mare Owner .....

P. O. .....

DATE BRED

Feb.	Mch	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

RETRIED

.....	.....	.....	.....	. . . ..	. .. ...	.....	.....	.....	

BREEDING CONTRACT

$_____ Date_____

For services rendered, I promise to pay_____

_____

_____or assigns_____dollars

When above described mare is known to be in foal
When above described mare delivers a living colt
When colt of above described mare stands and sucks

or before mare changes ownership, mortgaged or leaves county.

Signed _____

Page_____

SPECIMEN PAGE: EXACT SIZE.

Questions and Answers.

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

679—WEAK COLT—In 1911 I bred a 12-year-old mare and the next spring she had a colt. When I found it in the pasture it seemed to be hurt in the back and could not get up. It died in a few days. Several months before she had it she had an amber colored discharge; I noticed it every few days. After she had the colt the discharge was black as tar for a short time. She has had no colt since, nor discharge. —Texas Subscriber.

REPLY—It is quite likely that the placental membranes had become party detached and that the discharge came from the uterus. Such condition would interfere with the normal amount of circulation to the foetus, and it died from weakness and ill development.

680—WEAK FOALS—Why do at least 40 per cent of the foals die here when born, or a few days old? They all seem weak when born. Most stallions are used excessively, with little exercise in winter. Also most of the mares get little exercise during the winter months. Which is mostly to blame, mares or horse?—Canada Subscriber.

REPLY—You cannot expect strong, vigorous foals under such treatment of sire and dam, and you inquiry denotes the remedy. Give more exercise to the parents. Surely your country is large enough so that no animal should be restricted in the matter of exercise. Why not get onto the capsule method and conserve the energy of your sires. No need of overdoing stallions at this time with our present knowledge of breeding subjects.

681—DISEASED MARE—I have a fine mare with some age, that has what I suppose is whites, acts like she is in heat all the time. When she stands awhile she throws off sometimes a gill and sometimes a quart of thick, ropy matter; sometimes it is offensive, sometimes it is not. Can I cure her? If so, how?—North Carolina Subscriber.

REPLY—This case is not very promising as a producer. Have your veterinarian use the iodine treatment by injecting it into the uterus. If you wish to make a breeder of this mare do not let him use anything else. If one treatment does not stop the discharge, repeat in about three weeks, then let the mare go until warm weather and use the saline treatment several times before she is bred.

682—WANTS A CUT MADE—Where can I get a cut made of my horse so I can use it in advertising? How much do you suppose it would cost? Please answer in the American Breeder.—Nebraska Subscriber.

REPLY—Two kinds of cuts are usually advisable for this kind of advertising. If your horse is in good shape and you can get a good photograph of him, one which will do him justice, the best plan is to get a photograph and have a cut made from it. The Graham Publishing Company makes cuts for the subscribers of the American Breeder and this paper usually prints an advertisement giving the cost of such cuts. $2.00 is the lowest price; that price pays for cut about 3x4 inches, unless some retouching has to be done on the photograph. If a cut larger than 3x4 inches is desired, the cost is usually 15 cents a square inch. At this rate a cut 4x5 inches will cost $3.00. If the photograph requires any retouching, an extra charge has to be made. For the use of subscribers who cannot get satisfactory photographs of their animals, the Graham Publishing Company keeps a line of stock cuts made from original photographs. A sample sheet showing these cuts and giving prices will be mailed to any subscriber upon application.

683—SHY BREEDER—A fine imported Belgian mare is causing a lot of trouble to get in foal. She is now eight years old and have only succeeded in getting her in foal twice in last four years. There is no discharge, tail perfectly clean, vagina seems flabby and pale and secretion rather stringy. Seems to be no pus in uterus and temperature is normal. Mare is in best of physical condition and is not worked hard and not fed corn.—Ohio Subscriber.

REPLY—Use the iodine treatment and let this mare go until the weather warms up, then use the saline solution a little warmer than usual, twice. The condition described is probably sufficient to prevent conception, but at the next examination make a rectal examination and examine both ovaries; if they are cystic, squeeze the diseased parts gently, not enough to cause any inflammation, but to assist circulation. This should be done at the same time that the iodine treatment is used so as to give nature time to perform its functions.

684—TWO-YEAR-OLD SERVICES—I have a Belgian stud colt, was twenty months old January 16, 1914. He weighs 1640 pounds. There is no registered stallion in this vicinity and I have fourteen good mares of breeding age. Can I breed these mares to this colt the coming season without injuring him?—Montana Subscriber.

REPLY—You can breed this number of mares to this colt with good results, but the chances are that the colt will not be as sure in after years, more especially if some of these mares require several services. You might use him this season, castrate him this fall and feed him for the market. Unless your colt has several generations of draft blood on his dam's side, and is of excellent type, we doubt the advisability of using this grade horse, more especially as an untried sire. You have too much money invested in these good mares to take the chance. Your colt would make a good gelding with another year's growth and would make a good payment on a stallion of the right kind. You might induce some one to bring a stallion to your place, even though it be a considerable distance, and make a stand of one day in the week. If your mares are gentle, and there should be an expert breeder in your section, the semen might be carried in a black bottle under his arm in an automobile, or where good train connections could be made, a considerable distance with good results.

685—BLEEDING WHILE IN FOAL—I have a customer that has a mare that bled from the vulva for six weeks before she had her colt. The colt came on time but was very thin in flesh and was dead. Would like to know the cause of this and where the blood came from. She was kept in the barn and the blood could be found on the ground behind her, in the mornings. She is in foal again. Do you think this is likely to occur again?—Iowa Subscriber.

REPLY—Without the privilege of an examination we suspect the hemorrhage must have come from the vagina, due to the presence of a new growth on the wall of that organ, or a state of ulceration. The repeated loss of blood perhaps accounts for the weakened state of the foal. So much depends on the nature of conditions responsible for the hemorrhage that it would only be guessing in attempting to give an opinion as to how she will fare this year.

(Continued on page 18)

WHITEOAK STOCK FARM



American Bred Percheron Stallions and Mares.

The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.

IMPORTED PERCHERON STALLIONS

Each year I select 35 or 40 horses in France, so good and so correct in type, that any one of them will prove a great benefit to the man who buys it.

At the shows of the Southwest circuit, our horses won every championship and every group of five in 1913, as they have done most of the past five years. Our horses are handsome; our contract just and right; our insurance the best. Come and see me.

PERCHERON IMPORTING CO.,
CHAS. R. KIRK, Mgr. **South St. Joseph, Mo.**

Joseph Rousselle & Sons, Seward, Nebraska

PERCHERON, BELGIAN AND SHIRE STALLIONS AND MARES

We make a specialty of good, big, rugged type and action. Our two year olds weigh from 1800 to 1900; age horses from 1850 to 2260. In fact, we can show about as big horses as are living. We were in Europe early, which enabled us to get the right kind. We are natives of France and save in buying, also in selling to customers. Prices from $900 to $1,250; a few tops a little higher; home-bred come cheaper. Will furnish a state license according to the Nebraska law. Our guarantee and terms are right. Write, or better, come and see us. Seward is 26 miles west of Lincoln. Farm joins city on the north.

THIRTY PERCHERONS AND BELGIANS



and one Shire. They range in age from 1 to 7 years; all sound and heavy boned; weighing from 1800 to 2,200 pounds. There are 17 stallions and 13 mares. I will also sell my herd stallion, Jupiter 65723, coming 5 years old; weight, 2200.

These stallions are all sold under a guarantee to be 60 per cent foal getters. I have four year olds that weigh 2200; 2 coming 3 that weigh 1800. Can sell a good ton stallion for $750; sound and right in every way; some a little higher, and some lower. I will sell at a bargain to early buyers. I have both imported and home bred stock. **PETER J. EGGERS, DENISON, IOWA.**

Special Offering of Twenty Percherons

Stallions and Mares at Our WESTERN BARNS at SIOUX CITY, IA., During the Week of February 9 to 13, 1914.

Four year old Percheron stallions, weighing from 1,800 to 2,100 lbs.
Three year old Percheron stallions weighing from 1,600 to 1,900 lbs.
Two year old Percheron stallions weighing from 1,500 to 1,800 lbs.
Two year old Percheron mares weighing from 1,600 to 1,650 lbs.
One Belgian stallion five years old, weight 1,880 lbs.
All recorded in U. S. approved books and fully warranted.
We will make EXTRA low prices and EASY terms during this week, and we have sent many of our very best to this Western Barn. Go and see them.

C. F. SINGMASTER & SON, KEOTA, IOWA.
Don't forget the place and date.
SINGMASTER & WALKER, STOCK YARDS STATION, SIOUX CITY, IOWA. BARN "S."

The North & Robinson

Imported and Home Bred Percheron, Belgian and Shire Stallions and Mares acclimated before selling and put out in condition for service, have earned for us

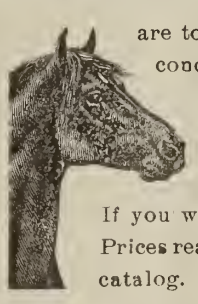
MORE SATISFIED CUSTOMERS

in Nebraska and adjoining states than any other firm can show. We have the farms, the feed, the climate and the experience to import and breed and handle draft stock economically and successfully, and our customers as well as ourselves reap the benefit.

Never Less Than 100 Head on Hand.
Come any time; we can supply any need in this line.

NORTH & ROBINSON Co. Grand Island, Neb.

DUNHAMS PERCHERONS



are today, as for the past 50 years, the BEST, as shown conclusively at the fall fairs and International.

We now have at Oaklawn a most excellent and uniform lot of stallions and mares, having just recently received a LARGE NEW IMPORTATION.

If you want the best—stallions or mares visit Oaklawn. Prices reasonable—guarantee the most liberal. Send for free catalog.

DUNHAMS WAYNE, DU PAGE COUNTY, ILLINOIS

THE AMERICAN BREEDER

With which is combined
THE STALLION AND JACK NEWS.

A Journal of Live Stock Improvement and Modern Breeding Practices.

FRANK B. GRAHAM and T. W. MORSE, Editors.

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459 Fifth Avenue Bldg.
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All communications for this paper should be addressed to the American Breeder, or the Graham Publishing Company, and not to individuals.

New Advertising Rates.
One inch for 1 month, $5; for one issue, $2.80. Two inches 1 month, $9.50; 1 issue, $5.00; ½ inch, 1 month, $2.80.
All orders amounting to more than $9.50 at the rate of $4.50 per inch per month.

SUBSCRIPTION PRICE.
One Year, $1; Three Years, $2. In Clubs of Four, Per Year, $3. For Canada and all Foreign Countries, $1.50 Per Year.

When sending subscriptions, please state whether they are renewals or new ones. Always renew under the same name and initials as previously used, and at least two weeks before your present subscription expires, so that you will not miss any number. When changing your postoffice address, state the old address as well as the new one.

If you miss your paper please notify us at once and all lost copies will be replaced.

Entered as second class matter November 28, 1911, at the postoffice at Kansas City, Mo., under the Act of March 3. 1879.

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All persons are warned not to reprint any part of this paper without first securing written permission from the American Breeder, Kansas City, Mo.

REGISTERING PERCHERON HORSES.

During the last 15 years numerous changes have been made concerning registered Percherons in this country. Until about that time a record association known as the "Thompson Book" was in existence. But for several causes some dissatisfaction came about, which resulted in the formation of the association now known as the Percheron Society of America.

After considerable litigation, that association became the owners of the Thompson Record. This was not satisfactory to some breeders, and as a result, two other associations were formed, one of which was the Percheron Registry Company at Columbus, O., which has since been purchased by the Percheron Society of America. The other was the American Breeders and Importers Percheron Registry Company at Plainfield; Ohio. This association is still doing business independent of the Percheron Society of America.

During the last few years a good number of substantial men have patronized the Plainfield book. One firm, we understand, has registered several hundred animals in that association. Its rules have been very much like those of the Percheron Society of America.

Until January 1, 1911, both of these associations were recognized by the Bureau of Animal Industry. On that date, the recognition of all American associations was withdrawn by the United States Government.

The Percheron Society has adopted an age limit with a very heavy penalty, which has practically barred the animals registered in the Plainfield book. This has created serious difficulty for breeders who had not given the subject much thought. Just recently a large number of pure bred mares registered in the Percheron Society were bred to a stallion registered in the Plainfield book. The stallion was an imported horse, properly registered in France, yet the progeny could not be registered in the Percheron Society without paying the age limit penalty on the sire.

Several state laws have refused to recognize the certificates from the Plainfield book. We do not believe that such action should have been taken, as the quality in one association is just about as good as the other. Some have said that this was done in order to encourage only one record association. When an age limit in the Percheron Society was adopted there were many good, substantial men who rather preferred the Plainfield book, owing to certain conditions at that time. These conditions have largely been removed and the management of the Percheron Society of America is now in better hands.

Many of these breeders who have been affiliated with the Plainfield book would like now to enroll their stock with the Percheron Society. There ought to be some way that this could be done. We believe it would be both profitable and just to those breeders if the Percheron Society of America would waive that age limit for a certain period of time and give these men opportunity to act by sending notices to all interested parties.

Another arrangement might be made by which these two associations could be consolidated. There will be found a few "top cross" animals in the Plainfield book, but we are informed that these were taken years ago and might not be a serious barrier, as the Percheron Society also has some "top cross" animals. It would save much confusion if these two associations were consolidated. We are not finding any fault with the Plainfield book, but the interest seems to be decreasing each year. Many breeders have left that association, which might make its stability in the future doubtful.

We only make this suggestion, that breeders interest themselves in bringing about a better condition in the registering of Percheron horses and save this unnecessary confusion.

PUBLICITY FOR BREEDING STOCK.

The word "advertising" has a wonderful lot of meaning. Practically every individual advertises one way or another. Some have been encouraged by results; others have not studied the better methods. Advertising is largely an American product. When one visits foreign countries he does not see so much display advertising. An extensive advertiser in Europe is frequently called an "American." Those who have anything to dispose of wish to find buyers as quickly and cheaply as possible.

There are a large number of advertisements in this paper. Look through these different advertisements and find which one would be most likely to attract the attention of a possible buyer. Which one would appeal to you as the best business getter. Notice the different amount of space used by different advertisers. A little study of this kind is worth while for any one who wishes either to buy or sell. The large number of satisfied advertisers should convince those having stock for sale that this paper reaches the progressive, up-to-date men interested in breeding stock. We believe these advertisers constitute the best men in the live stock and other business. They are not afraid to offer their product to the experienced breeders at a marketable value. They believe their goods will stand inspection and satisfy critical buyers. It will prove a good lesson for the average individual to study these advertisements whether he wishes to buy or sell.

TRAINING SADDLE HORSES.

A great many fine prospects in this class of horses remain undeveloped, that could be made valuable animals. We have a large number of readers who are actively engaged in handling these horses who have made a success of it. We should like to hear from these men giving their experiences in horse training with either three gaited or five gaited horses or both. These horses are meeting with good demand when properly trained.

There is much interest in saddle horses in many sections that formerly had paid little attention to horseback riding. Many physicians are advocating this kind of exercise. The bridle paths in large cities are being used more each year. Automobiles do not seem to affect good saddle horses. We will be glad to print many letters on this subject.

CONTAGIOUS ABORTION IN MARES.

A Minnesota subscriber writes:—"We have what we think is contagious abortion in our herd of mares. Have lost eight colts. They carry their colts from five to seven and a half months. Have put some of the mares on another farm but it does not stop it. They drop some yellow matter a day or two before they abort. Our veterinarian claims he can clean the mares so that it would be safe to breed them to the horse. Is this so? Are these mares apt to lose their colts another year? Are they not hard to get with foal? Will I have to wash this stallion with some disinfectant? He was in the same barn where the mares aborted. I have bred 80 mares with this horse; so far I am the only one that has lost colts. Is black haw good to give these mares in this case? I have used one gallon of it without results."

This is the abortion problem again up for solution, one other question on this subject being answered in the question department of this issue. Every year about this time numerous complaints reach the American Breeder. Just as long as breeders are indifferent as to the manner in which this disease is disseminated just that long will these complaints pour in. Just as long as breeders will insist in breeding their aborting mares back to stallions, and just as long as stallion owners will permit it, just that long will contagious abortion be with us. These mares abort during the winter and early spring months and many of them will be found among the first mares to reach the stallion at the opening of the breeding season. In this way the seed is sown for the sound mares that come later, and abortion in that uarticular neighborhood is spread. Why do stallions under natural service make a record of from 50 to 60 per cent of living foals? Largely because contagious abortion cases are growing so numerous.

Artificial insemination is going to be the greatest factor in wiping out this malady just as soon as all breeders appreciate its value in that direction, because it strikes at and removes the main cause of its spread. A mare that has aborted from any cause should not be bred to the stallion under any circumstances, for fear of infection. When it is so easy to breed her with a capsule, why take chances. In the cleaning up of infected premises and the undertaking of the eradication of infectious abortion, one needs the personal help of some competent veterinarian experienced in such matters. There is the matter of the proper segregation of the aborting mares from the apparently healthy, the thorough cleaning up of premises, the treatment of the affected cases and the after care necessary after they have reached a point where it is thought safe to breed them. These are all problems requiring close attention to details and the average breeder needs personal professional advice in accordance with the particular conditions.

PHOTOGRAPHING LIVE STOCK.

The American Breeder receives more photographs of live stock, probably, than does any other agricultural paper in this country. We find much that is interesting and instructive in these, although we do not always have space to publish even the pictures which are good. The point that prompts this article, however, is the fact that a good many of these pictures are not suitable for publication. Often they are not clear enough to make cuts which are printable, and, almost as often, even those photographs which are clear have been taken in such a way as to not do the animal justice. We will, therefore, try to make some suggestions which will be helpful in photographing live stock.

As a general rule, the best results can be obtained by taking a straight side view of the animal. One usually needs a special camera in order to get a good photograph of a front or rear view. Most ordinary cameras are likely to make the end farthest from the camera appear too small. If it is desired to show the animal's face, take a side view and turn the animal's head slightly toward the camera. In making a photograph, whether the sun is shining or not, the strongest light should be on the side of the animal next the photographer.

The animal should stand on level ground, or on ground nearly level, with the front feet slightly higher than the hind feet. Good position is very important. The animal should stand erect with its feet squarely under it and its legs straight. Do not get the front feet and hind feet too near together as that is likely to make the hips appear too high. It is almost as bad, however, to stretch an animal too much. An extreme "stretch" is unnatural, although it is sometimes used purposely to hide the defect of crooked hocks. While the animal's head should be fairly erect, there is danger of getting it too high or getting the nose too much elevated. The natural position is the best, unless the animal naturally wears a dull and sleepy look. When an animal is to be photographed it should be well cleaned off and (if a horse) its mane and tail brushed out. A patch of manure in the flanks or straws hanging to the coat are sure to show up in the picture.

The camera should be kept level. Tipping it either up or down is worse than tipping it sidewise, as a defect from tipping the camera sidewise often can be remedied by squaring the picture with some vertical object in it, like the door casing or corner of the barn. The one taking the picture should, in some way, hold his camera about as high as one's eyes would naturally be in looking at the animal. Often he can stand on higher ground, or on some object.

Another caution to be observed is that of the back-ground. A white horse against a white barn does not give a photograph that can be used. The back-ground should be enough darker or enough lighter than the animal being photographed, to give contrast, so that the outlines of the animal will show distinctly.

If these cautions are observed and both the photographer and the man holding the animal use plenty of patience, good photographs often can be secured with ordinary cameras or "kodaks," although, of course, better machines combined with skill and experience, will, as a rule, show in the results. We have printed many good cuts made from small kodak pictures, as every reader of the American Breeder knows.

Live Stock Market Review

Mules are the prominent feature in the equine trade. The south is buying in large numbers and feed barns are rapidly emptying themselves. The general demand opened with considerable vigor early in January and has continued with briskness up to the present time. Dealers see no reason why trade should not continue active well into early spring. Many traders believe that the rapid movement of mules from feed barns without prectically any going back to take their place is going to result in a decided scarcity of fat mules later in the season. Buyers from cotton states want mules to be fat and in good condition and if offerings do not meet these requirements the volume of trade will be greatly restricted. The cotton states are prosperous. Last year's cotton crop was the second largest ever grown, and in value is the greatest ever produced. The cotton states now have the greatest purchasing power they have ever had, and with recent active improvement in farm and plantation methods they are going to require more horse power. In selling early some mule feeders have made the mistake of sacrificing quality at less than weight requirement. The feed situation however, has been eased off materially by the open winter and now spring is being looked to as further relief in feed lines. The central valley demand for neither horses and mules has made an appearance, except that there is a full demand for brood mares. This trade ought to open up into considerable volume towards the middle of February. Prices for mules in the past two weeks have fluctuated $5 to $10 a head and now show no important change compared with two weeks ago. Considering the large supplies that have been offered thus far this month the price movement has been small. In January, St. Louis and Kansas City received almost 3500 more mules than in the same period of 1913.

Eastern demand for horses is as backward as the Southern demand for mules is brisk. Eastern buyers are taking some heavy drafters under protest, claiming they are costing more than they can realize. They also claim that prices will have to be lowered or they will quit buying. Country buyers have had lower prices shot at them since the first of the year, and they in turn are trying to get producers to accept less. However, farmers with the good kinds are selling tight and it is not unlikely that Eastern demand will have to come through. Good, heavy horses are going to sell better when the late winter demand is opened for farm horses. That source will take some of the heavy horses the East would like to have. In the price line, horses are about $5 a head lower than two weeks ago, but the market is in such a position that increased demand will be felt readily. The common and medium horses are selling slowly, with prices fluctuating unevenly.

The following quotations are for serviceably sound horses and mules, 4 to 7 years old:

Horses—	
Drafters, choice, 1600 lbs. up.	$240@280
Drafters, fair to good	150@235
Chunks, fair to choice	130@165
Chunks, fair to good	90@135
Expressers and light draft	65@130
Plain workers	45@ 90
Southerners, good	125@150
Southerners, plain to fair	60@130
Plugs	20@ 45
Mules—	
13 to 14 hands	$ 90@140
14 to 15½ hands	120@175
15½ to 16 hands	160@215
16 to 16½ hands	200@285

Irregular Prices for Steers.

Prices for steers in the past few days became irregular. The better class of steers in the preceding ten days advanced 20 to 30 cents, and then lost part of the rise. The plainer grades which have predominated held to the general tendency upward, and now are 15 to 20 cents higher than two weeks ago. Demand on the whole is fairly active and fully up to the general supply.

Warm weather has restricted demand for beef to some extent, and that in turn has tended to keep the advance in cattle within limited bounds. The top prices for steers was $9.25 in Kansas City and $9.50 in Chicago. These are the highest prices ever paid in January at the respective markets.

Texas is said to have a good many cattle on feed, and they will be marketed in the next three months. The mountain states will also contribute to the supply in the next six weeks. The outlook is for a continuation of a fair supply of medium cattle and a scarcity of prime grades.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.00@9.25
Good to choice steers	8.50@9.00
Fair to good steers	7.75@8.45
Common to fair steers	6.00@7.70
Meal fed, choice	8.10@8.65
Meal fed, common to fair	7.00@8.05

Butcher Cattle Remain Firm.

But for the female cattle fattened on wheat fields the supply of butcher cattle in the past two weeks would have been exceedingly small. Such

PERCHERON MARES
AND STALLIONS

Having sold one farm we must reduce stock and we now offer choice of reserve Percheron brood mares that have produced prize winners, including Favorite, two years old; weight 1,800. Her dam, imported Grandee, the best breeding mare we ever owned, whose colt this year sold for $600, and four other mares that have never been offered before.

Also a 4-year-old stallion; weight 2,160, whose get has never been defeated One show yearling, also another yearling at very cheap price.

WHITEHALL FARM, C. F. JONES, Rippey, Iowa



20—STALLIONS, JACKS AND JENNETS—20

Imported black Percheron stallions, 5 and 6 years old; weight from 1700 to 2100 pounds. These horses are well broke and tried breeders. Can show best colts in Kansas. Also one fine sorrel Morgan stallion, 7 years old.

Big, black, registered Mammoth jacks and jennets; 1 to 5 years old. Jacks 15 to 16 hands high; tried breeders and quick workers. Can show colts. Herd headed by imported Spanish jack. We won more prizes at the Kansas State Fair in 1912 than all our competitors. Farm 30 miles Northwest of Hutchinson. Come and see us. Will meet trains at Chase or Raymond. **J. P. & M. H. MALONE, Chase, Rice County, Kans.**



R. L. HARRIMAN, Bunceton, Mo.

The Fine Horse and Jack Auctioneer of the West

I sell more horses and jacks than all others. Terms always right: work always up to the highest standard.



35 HOME-GROWN PERCHERON, SHIRE AND BELGIAN STALLIONS AND MARES AND 50 REGISTERED JACKS AND JENNETS.

of the big boned, rugged kind, from 14 to 15½ hands high. This stock is all pasture raised and runs in the open. Will make a special low price on my imported Belgian herd horse, Champion 4980 (58644); sorrel; weight 2,200 pounds. His fillies are in the way. This horse is 6 years old and a sure breeder. All stock sold with breeding guarantee.

HENRY BECK, LITCHFIELD, NEBRASKA.

THE NEXT
Stallion Show
WILL BRING OUT THE
BELGIANS

Every Subscriber Owning a Good Belgian Stallion Should Be Represented.

Entry Blanks and Photographs Must Reach This Office By February 28th.

READ FULL DIRECTIONS BELOW

Competition in this contest is limited to mature animals—this is, stallions four years old or over. Each one, as its photo and description are received, will be given an entry number, which will be published with the picture and measurements. No names will be given out until the awards are made. Then all of the entry numbers will be published, along with the names of the stallions, and owners who entered them. Each photograph should give a straight side view of the stallion's body, but may show his head turned slightly toward the camera if the owner desires. Only a few measurements are required. The blank below shows which ones. These measurements, and a good, clear photograph will show pretty accurately, to an experienced man, what the stallion is as an individual. Measurements should be taken with a tape line drawn tight enough to press tight to the skin, but not enough to press into the flesh. We reserve the right to have a committee remeasure any animal and publish the result of its findings. Photographs can be any size, but those on which the stallion's body measures, in length, three to six inches are usually best. It is most important that they be clear and that the stallion stands straight and naturally when photographed.

Make all entries in the blank below; clip it out and mail to the American Breeder.

ENTRY BLANK FOR BELGIAN STALLION.

American Breeder Stallion Show—Kansas City, Mo.

Enter my stallion, as follows:

Stallion's Name.....Record No. .....

Height (measuring from a point level with the top of the withers straight to the ground).....inches.

Bone (around foreleg, smallest place between knee and ankle) .....inches.

Owner's Name..... County.....

Postoffice ..... State.....

SIX FIRST CLASS PERCHERON STALLIONS

For sale: 1 nine-year-old black, wide and low; used him 6 years in my herd and is an extra breeder. I five-year-old gray, wire scar on one foot. Good, broke to work. 1 eleven-year-old black; imported. 1 extra good coming two-year-old. Choice of the above $600.

Also: 1 four-year-old black; 12½ inch bone, will make very large horse. One 5-year-old black; a nice ton horse. These two have extra quality, style and action. Choice of the two, $1,000.

H. L. HINCKLEY, M.D., Barnard, Kas.

TWO REGISTERED STALLIONS

for sale. The Percheron stallion, Corbon (51151), is a dark grey; 16¾ hands high; weighs 1900; is a sure breeder; colts to show.

Also a Standard bred trotting stallion, Ralph Forest, 56816; will be 3 years old May 2d; weighs 1250 pounds. Not broke to harness. He served 4 mares last season; 3 are in foal; has a fine disposition and size enough for any work.

R. N. MONTGOMERY, Prop., Prairie Valley Stock Farm, Rich Hill, Mo. Route 5.

REGISTERED PERCHERON STALLION

For sale. Seven years old; 1900 pounds; dapple grey; a fine individual and a splendid breeder; an excellent disposition. Will sell at a bargain. Am quitting the business.

J. J. WOODS, Harrisonville, Mo.

FOR SALE OR TRADE FOR LAND.

Five good Percheron stallions, some mares and fillies. All registered; big boned and growthy.

F. T. WALLACE, Assumption, Ill.

3 GOOD PERCHERON STALLIONS.

One black; 2-year-old; extra; 1900 pounds. One dapple grey; 4 years old; weight, 2040 pounds. One black grey; 2 years old; 1895 pounds. F. A. McCABE, Box 2, BLUE MOUND, KANS.

WANTED — STALLION ON SHARES.

I am in position to take any reasonable good draft stallion on shares for next season, with a view of buying.

P. W. ANDERSON, Madison, Minn.

PERCHERONS

For Sale. Imported and home-bred stallions and mares at prices that will sell them.

H. REDENIUS, RUSHMORE, Nobles County, MINN.

PERCHERONS

For sale. Two Besique stallions; blacks; coming 2 and 3 years old; sound. Also a few mares.

J. B. WHITAKER, Forest City, Ill.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice.	$6.85@7.60
Fair to good	6.00@6.85
Common to good	5.00@5.95
Canners	4.15@4.90
Heifers—	
Choice fed	$8.25@9.00
Good to choice.....	7.50@8.25
Common	5.75@6.50
Plain to fair	6.50@7.45
Veal calves	6.00@11.00
Bulls	5.00@7.75

The following quotations are for stock and feeding cattle:

Selected feeders	$ 7.85@ 8.50
Good to choice feeders...	7.45@ 7.80
Plain to fair feeders....	6.75@ 7.40
Selected stockers	7.75@ 8.35
Good to choice stockers..	7.25@ 7.70
Plain to fair stockers....	6.50@ 7.20
Stock calves	6.50@ 8.50
Stock cows	4.75@ 6.25
Stock heifers	5.00@ 6.75
Milch cows	50.00@110.00

Hog Market Still Strong.

The rapid rise in prices of hogs which was the factor in the market in the first two weeks, settled into a series of fluctuatiing prices with a stronger tendency. New high levels for the year were made in Chicago at $8.60, St. Louis, $8.65, and Kansas City at $8.50. These prices were never surpassed before in January, except in 1910, and in that year in the following March the highest prices ever known were recorded. Compared with two weeks ago, prices now are 5 to 10 cents net higher, and the total fluctuations is that time is covered by 15 to 20 cents, a comparatively narrow price movement for this season of the year.

As to quality, there has been some improvement, but average weight is still holding about 25 pounds under a year ago. Packers are making an earnest effort to keep prices below $8.50, and they seem to feel that if that mark is passed the advance will be unchecked until a 50 cent rise is obtained. A large number of the fat hogs coming from Kansas and Missouri have been fed on wheat and they are making fairly good killing return. The best success has been in feeding wheat, ground, in connection with corn.

The following quotations are for hogs:

Choice, 250@300 lbs.....	$8.35@8.45
Choice, 200@240 lbs.....	8.25@8.45
Medium weight	8.10@8.40
Light weight	7.85@8.30
Common to fair	6.65@8.00
Stags	6.50@8.25
Boars	4.75@6.75
Bulk of sales	8.10@8.40

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week.
Monday	$8.00@8.50	$8.00@8.42½
Tuesday	7.95@8.45	8.00@8.50
Wednesday . .	7.90@8.30	8.00@8.45
Thursday	7.90@8.35	7.90@8.37½
Friday	8.00@8.45	7.85@8.40
Saturday		8.00@8.40

Sheep Prices Are Lower.

Prices for lambs in the past two weeks showed the lowest levels since late in November, owing to heavy receipts. Feeding sections in the mountains have had heavy snows and in some places feed became exhausted, forcing owners to market them. Buyers took advantage of the large movement and depressed prices. Lambs now are selling 30 to 45 cents lower than two weeks ago and sheep are off 15 to 25 cents. Omaha, Kansas City, and Chicago all reported larger receipts last month than in January, 1913. Fat lambs now are quoted at $7.25 to $7.75; yearling, $6.00 to $6.75; wethers, $5.25 to $5.75; ewes, $4.75 to $5.40. Some Mexican goats, grass fat, sold Friday at $3.95. They were the first of the season.

The best stallion service record book made—space for 200 mares—is advertised and described in this issue. Be sure to look up this description.—Adv.

Hog Breeding; Lesson I

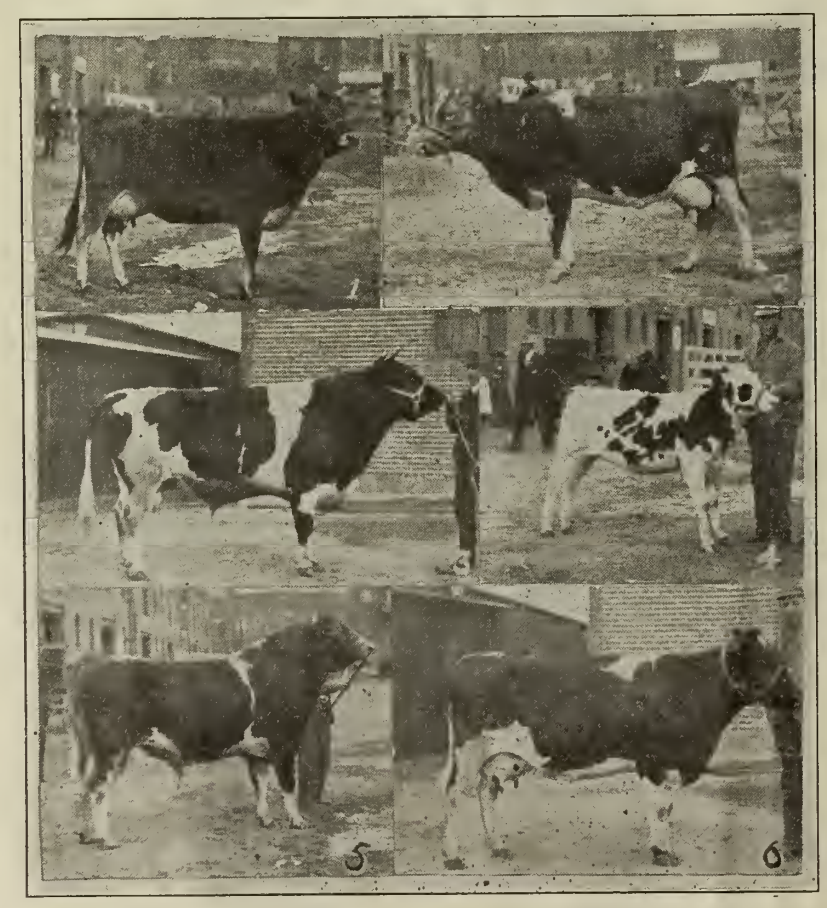
Editor's Note:—So many of our subscribers have written us of their interest in hogs, that we are beginning, with the following article, a series of "lessons" on hog raising. This material is based on the knowledge of practical men and the best trained observation and experimental data. The reader will, of course, need to give all the additional study he can to the subject, but these lessons should serve well as a general guide and a foundation on which to build.

There is no better way of getting started right in the hog business than by buying a good bred sow. Whether or not such a purchase is a profitable one depends upon several factors. Regardless of breed, the type selected must show utility in every sense of the word. An animal may show fancy points of the preferred breed, but unless it meets the requirements of the packer, the breeder cannot hope to succeed.

The large number of bred sow sales which are to be held this month and next gives the buyer much opportunity for selection. In making a choice the purchaser should remember that utility demands, in the sow of lard hog type, a short broad head indicating early maturity and easy feeding type. In general appearance the sow should be broad ribbed, deep, with good length, standing squarely upon short legs of substantial bone, supported by upright short pasterns and strong feet. The sow must not only show width and depth of body, but must also show strength in her lines. The top line should be slightly arched from head to tail. Care should be taken to see that the under line does not cut up between the forelegs and in the flank. A common defect in swine is to lack depth through the front end so this point should be carefully looked after. Width and depth of chest, or in other words, large heart girth, is an indication of good constitution. If the top and bottom lines are good, see that the side lines are also as they should be. The shoulders should join smoothly to neck and body, and not be coarse and open. It is a bad point for a sow to be wider through the front end than through any other part of her body. The width of body should be uniform from front to rear. In other words, the ribs should be well sprung so a straight edge placed along the side of the animal would not only touch the shoulders and hams, but the sides as well. This, of course, refers to an animal in good flesh, such as they will be found in the sale ring. If a sow has good width of body, carried uniformly from front to rear, great depth and medium length, you will have size, and size goes with utility.

Size, however, is not all that should be looked for. The animal must have quality. Quality is hard to define. It is not hard, however, to recognize quality or the lack of it in the animal under inspection. Quality is indicated by the general appearance of the animal being one of smoothness and its action relatively easy and brisk for an animal of its weight. The short, broad head should show well defined features; its eyes well open and clear; the skin and hair should not be rough and coarse or its ears extremely heavy and hard to move. The bone of the animal must show smoothness and firmness of texture throughout. The largest bone is not always the best bone. A medium sized, firm, hard bone is to be preferred to a coarse, open, porous one.

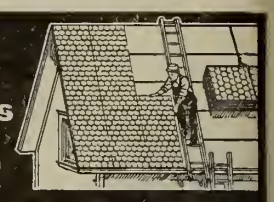
In purchasing a sow the question of condition should receive due consideration. A sow may show proper form and quality but fail to give a good account of herself because of her condition. Fat covers a multitude of defects and the sow in the highest condition may often look better than



DAIRY CHAMPIONS, DENVER LIVE STOCK SHOW.

1—A. M. McClenehan's champion Jersey. 2—May Rose III of Le Masse, H. D Parker's champion Guernsey. 3—Hall Bros'. champion Holstein bull. 4—"Some Ayrshire." 5—H. D. Parker's champion Guernsey bull, Longwater Royal. 6—Hall Bros'. champion Holstein cow.

Get Edwards Latest Special STEEL Shingle Offer



Don't buy wood shingles, which burn and rot, but use Edwards "Interlocking" Steel Shingles, which are rust-proof (made rust-proof by famous "Tightcote" Process), fire-proof, lightning-proof and cheaper than wood. Sold direct from factory at wholesale prices. No painting, no extras, no tools needed—just a hammer and nails. 125,000 delighted owners. We pay the freight.

Write at once for Special Price Roof Book No. 276, and give size of roof if possible.

This Brings Big Offer!

THE EDWARDS MFG. CO.
226-276 Lock St., Cincinnati, Ohio

Please send book on your Steel Shingles, together with latest Freight-Paid Prices.

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Address.....

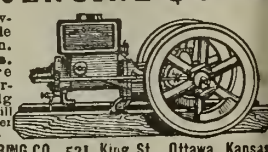
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We also build Alfalfa Grinders, Hand Grinders, Stover Feedmills, Pump Jacks, Ensilage Cutters. Free catalogs

5 H. P. GASOLINE ENGINE $89.50

Simple, durable, powerful. Carefully made to give satisfaction. 34 sizes and kinds. Shipped anywhere on trial. Fully guaranteed. Send for Big 48 page Catalog. It will help you to buy a better engine for less money.



OTTAWA MANUFACTURING CO., 521 King St., Ottawa, Kansas.

Sunshine Lamp 300 Candle Power FREE

To Try In Your Own Home



Turns night into day. Gives better light than gas, electricity or 18 ordinary lamps at one-tenth the cost. For Homes, Stores, Halls Churches. A child can carry it. Makes its light from common gasoline. ABSOLUTELY SAFE.

COSTS 1 CENT A NIGHT

We want one person in each locality to whom we can refer new customers. Take advantage of our SPECIAL FREE TRIAL OFFER. Write today. AGENTS WANTED.

SUNSHINE SAFETY LAMP CO.
1064 Factory Bldg., Kansas City, Mo.

GUNN'S 2-HORSE, GUIDER ROAD BUILDER

Pair associations, clean the pole, and build up the turns. 10-ft machine has two guider wheels.

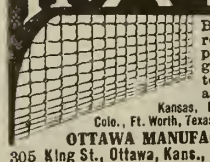
Sold on 15 days trial. Guaranteed to move more dirt with less draft than any machine made. Two levers, one tilts the blade any angle, one raises and lowers the rear end of blade, leaving the dirt where you want it, crowning road bed smooth.



Made in 3 sizes
7-ft blade, $30
10-ft " $20
7-ft weighs 200
10-ft " 250

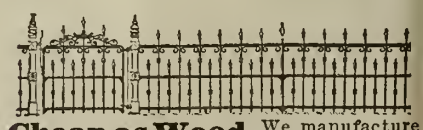
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RED OAK, IOWA

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Cheap as Wood We manufacture Lawn and Farm Fence. Sell direct, shipping to users only at manufacturers' prices. WRITE FOR FREE CATALOG.
UP-TO-DATE MFG. CO., 990 10th St., Terre Haute, Ind.

Alfalfa Seed

Dawes County, Non-irrigated Alfalfa seed cane, millet and sweet clover seeds. Baled alfalfa hay, all cuttings. Prices and samples free.

SCHWABE BROS., CHADRON, NEBR.

Seeds Shipped On Approval

Medium red clover, big English clover, alsike clover and timothy seed. Boone County white and Reid's yellow dent tested seed corn. Write for samples and delivered prices.

J. W. RICHARDS, Ferris, Ill.

Aermotor Tiller that renovates, mulches, stimulates, without injury to plant. Catalog Free. **Light Draft Harrow Co., Marshalltown, Ia.**

one not so fat. Sows in medium flesh may reasonably be expected to give better results than one overdone or too fat. It should not be understood that a sow to be a good producer should be thin, for a half starved sow cannot work up to her limit. The best producers must be kept in good medium condition, being neither too fat or to thin, but they should be hearty eaters. Most breeders now recognize the harmful effects of having the breeding animals over fat and sell their offering in good working condition.

Men with swine experience can usually recognize with merely a casual examination whether or not the animal possesses the type desired by the butcher. Unsatisfactory purchases are more often due to the buyer failing to buy utility from the breeder's rather than the butcher's viewpoint.

To return a profit the sow must be prolific and it is impossible to emphasize this point too much. She must come from prolific strains. She must be feminine and motherly in appearance and have room not only to carry a large litter, but capacity to handle enough feed so she will suckle them well. Care should be taken to see that she has at least 12 well developed teats, set well apart and the front ones being well forward on the body. From the breeder's standpoint, these latter points are of great importance for they are indications of her ability to produce a good litter and care for it properly.

In selecting the brood sow, then, keep in mind the utility of type desired by the butcher, feeder and breeder in order that pork of the right sort may be produced and produced with a profit.

PERCHERONS

Mares and Colts.

25 head imported and American bred. Have six two year olds that weigh 3,000 to the team; dark greys.

JOHN PECK, Lexington, Ill.

AN EXPERIENCE WITH HOG CHOLERA VACCINATION.

To the American Breeder:—In your issue of January 20, on page 6, is a hog cholera article. I was at your office in Kansas City on October 3 and 4, 1912 when I got serum from a Kansas City firm. I vaccinated 117 head on October 5 and 6. Of this number 5 were not, at the time, showing fever, 8 ranged from 103.3 to 104 degrees and the balance of 73 head of 80 pounds and over were from 104 to 107.4 degrees with eleven over 106 degrees fever. As these temperatures showed general infection, and their physical condition also showed general infection, only the single treatment was used except on the five that showed no fever. They were given double treatment. These pigs were then turned in a dry lot where they had shelter and plenty of bedding and given only water till they got very hungry. Then we commenced sorting the very hungry ones out and started them on feed again. We lost four head before I started vaccinating and after vaccinating lost only seven more.

These pigs were recently shipped to market where they realized within five cents of the top. In this neighborhood many hogs were vaccinated. A careful summary of results show that a considerable proportion die from blood poison, and 80 per cent of those dying from blood poison were vaccinated by one of three veterinarians, while work done by the other two was generally successful.

To my knowledge some serum firms are advertising on the following basis: "Mr. Veterinarian: Buy your serum of us at one cent per cubic centimeter and charge your patron two cents and make 100 per cent on your serum, besides charging your regular fees for the work."

There has been some agitation started for government tested serum. This is right, but as this work has developed since 95 per cent veterinarians have taken up the practice, ought not they also post themselves thoroughly as to the use of serum, and not use as they individually think best.

It is true that we have conscientious veterinarians who use only the best serums, but as long as there are others who use the cheap, unreliable serum, just so long will we find localities where one man will vaccinate with success and his neighbor have failure.—C. F. J., Greene County, Ia.

WESTERN CROP CONDITIONS.

Reports from many different sections of the West indicate a very large crop for the coming season. Practically every section of the West has had an abundance of moisture, either in rain or snow. A very large area has had snow from two to five feet on the level, which has gone off gradu-



I want to tell you something New about Northwest Texas

You, who are looking for every chance to better yourself — to find ways and means of getting more real money for your labor and capital invested — should cast aside past ideas of the great Texas plains and investigate the late development there.

Within the last two years water for irrigation has been found within pumping distance of the surface, over an area of more than a million acres. The fertility of this deep soil is proven by the tremendous crops that result when it is irrigated. Alfalfa, kafir (pictured above) and wheat (shown below) yield wonderfully.

Beef-cattle and hogs put on meat rapidly. The climate and the abundant feed raised on low-priced land bring them into market condition at less cost than possible farther north.

Buyers are close at hand. Fort Worth pays practically Kansas City prices all the time.

You should know all about this section as it is to-day. I want to send you our folder describing the Shallow Water Country. In that booklet you will find all that I would like to tell you here. You will find it interesting and profitable. I will send you a pamphlet, also, of letters from farmers on the ground — men who have made good. I will tell you, too, of the Santa Fe Agricultural Department and the help it gives, without cost.

Just write a postal, "Send Shallow Water Country," and get acquainted with a good business proposition.

C. L. Seagraves, General Colonization Agent,
Atchison, Topeka & Santa Fe Railway,
2511 Railway Exchange, Chicago.



NORTHWESTERN LIVE STOCK INSURANCE CO.

PAID UP CAPITAL $100,000. ASSETS $175,000
ONE HUNDRED THOUSAND DOLLARS ON DEPOSIT WITH THE IOWA INSURANCE DEPARTMENT
GOOD PRODUCING AGENTS WANTED
ADDRESS HOME OFFICE, DES MOINES, IOWA



Co-operative Public Sale

BY THE NORTH MISSOURI PURE BRED LIVE STOCK ASSOCIATION

Of Registered Stallions and Mares, Jacks and Jennets

TRENTON, MO., MONDAY, MARCH 9, 1914

This offering is chosen from representative breeders and consists of the best bred lot to be had in North Missouri. At no auction will the farmer or breeder have a better opportunity to pick the best there is in draft breeds at his own price.

These sales are organized to bring the buyer and seller together. The primary aim of these breeders in offering their stock in a co-operative sale is to encourage more extensive breeding of registered stock for the general profit of farmers and breeders.

SALE COMMENCES AT 1:00 P. M. IN THE SALE PAVILION

FOR CATALOGUE WRITE **W. A. McVAY, Manager, Trenton, Mo.**

Auctioneers: W. B. Carpenter, Pres. Missouri Auction School; Thos. E. Deem, Cameron, Mo.; S. G. Garnandx, Trenton, Mo.

Robison's Percherons

At Auction, February 25

50 High Class Registered Animals

20 Stallions, Several Imported. Much Herd Heading Material.

30 Mares including more Heavy in Foal than any former Sale.

This Sale offers the best possible assurance of substantial values. This is the oldest Percheron Breeding Plant in the West, with $100,000 in Land and Buildings alone. We have put 2,000 Percherons on the good Farms of this country. How good our Breeding Herd and the Sale Offering are, we leave you to judge and sincerely urge you visit this Farm Sale Day and make sure.

THE CHAMPION CASINO, 10 YEARS IN SERVICE

Sale on Farm. Free Transportation from Towanda. Stock Loaded on Cars Free of Charge.
Send at once for Catalog, mentioning American Breeder.

J. C. ROBISON, Towanda, Kansas

ally, resulting in the earth absorbing nearly all of it.

One railroad has recently contracted for 5,000 new cars to handle its wheat traffic alone. This vast amount of moisture in the dry parts of the western country means much to pasture forage and grain. When the western half of the United States is supplied with a beuntiful crop, prosperity usually follows, both east and west.

"Jim" Hill of railroad fame, has recently said that the northwest was in an excellent condition generally, with good prospects for the future. Railroads have recently placed large orders for steel rails for improvements and use in new lines. Financial experts are of the opinion that good times will follow probably for several years. They do not anticipate a "boom" but a general loosening up of business.

SILAGE FOR HORSES.

To the American Breeder:—Some inquiries have been received by the college concerning the advisability of feeding silage to horses and mules.

Silage is not a safe horse feed. It is used to some extent for that purpose, but the feeder must be extremely careful in the examination of the silage that goes to the horses. Horses are more subject to digestive derangements than most other live stock, and while a comparatively small amount, say a fifth of their feed, by bulk, may consist of good silage, there is great danger from overfeeding, or from the feeding of moldy or spoiled silage.

It is impossible to wholly prevent moldy spots in silage, these being caused frequently by imperfect packing, leaving slight air pockets. Also, it is very difficult to make sure that there are none of these moldy spots in silage which is being fed. Its use should be confined chiefly to growing colts and idle horses. As it contains about 75 per cent water, it causes a horse to sweat easily and affects him otherwise in the same way that green feed or pastures does. —G. E. Morton, Colorado Agricultural College.

HIGH MARK IN NATION'S LIVE STOCK WEALTH, $5,323,500,000. HORSES AND MULES MORE THAN ALL THE REST.

The live stock census of the United States for January 1, 1914, gives an insight into the animal husbandry of this country, which is probably the most interesting afforded by a government information.

It shows for one thing that the horses and mules on farms of the United States continue to exceed in value all cattle, hogs and sheep. In round numbers the total value of the horses and mules in the United States (and this includes no jack stock at all), is $2,842,500,000; the total value given for all cattle, hogs and sheep is about $2,841,000,000, a difference of $361,500,000.

Horses in number and value are ahead of any previous year in the history of this country, and mules the same, although the average value per head is slightly below the general point of the past three years. As has been pointed out many times, this decrease comes altogether from the cheaper class of stuff which cuts down the general average; heavy drafters being as high as they have ever been. In cattle, hogs and sheep there has been a steady decrease in numbers for the last three years, except in milk cattle. In numbers milk cows have remained practically stationary. Average prices per head, however, have shown gains in all classes, so that the indications are for better profits in every line of

Quality *Quality* *Quality*

Genuine Draft Horses

Percheron and Belgian

STALLIONS

The kind you are looking for and the kind your customers will demand. ***Visit our barns*** and pick out a good one. We will make the ***price*** so ***low*** you can't help but buy. Our guarantee ***"Satisfactory Breeding Quality."***

What more could you ask?

GEO. W. SOUERS & SONS

HUNTINGTON, :-: :-: INDIANA

(*Our Stallion Service Book for 10c*)

HOMEWOOD STOCK FARM

STALLIONS AND MARES

Percherons, Belgians and Shires

OF SIZE AND QUALITY AT PRICES TO SELL THEM.
If in the market for a PAIR OF MATCHED BROOD MARES OF either breed, or a FIRST CLASS STALLION, write us for full particulars. HOMEWOOD is on the main line of I. C. and Big Four Railroads, 23 miles south of Chicago, with suburban trains to and from the city every hour. BARNS IN TOWN.

BELL PHONE HOMEWOOD 58W S. METZ & SONS, Homewood, Illinois

We have 40 head of Percheron and Shire Stallions and Mares at our Branch Barn in Pendleton, Oregon, in charge of M. C. Metz.

good live stock which a farmer can raise.

We give below a complete table as compiled and published by the Crop Reporting Board of the United States Department of Agriculture:

Table showing numbers and values of live stock in United States on January 1, of 1914, 1913, 1912 and 1911, respectively:

Date of Estimate Jan. 1.	Total Number	Value Per Head	Aggregate Value.
HORSES.			
1914.	20,962,000	$109.32	$2,291,638,000
1913.	20,567,000	110.77	2,278,222,000
1912.	20,509,000	105.94	2,172,694,000
1911.	20,277,000	111.46	2,259,981,000
MULES.			
1914.	4,449,000	123.85	551,017,000
1913.	4,386,000	124.31	545,245,000
1912.	4,362,000	120.51	525,657,000
1911.	4,323,000	125.92	544,359,000
MILCH COWS.			
1914.	20,737,000	53.94	1,118,487,000
1913.	20,497,000	45.02	922,783,000
1912.	20,699,000	39.39	815,414,000
1911.	20,823,000	39.97	832,209,000
OTHER CATTLE.			
1914.	35,855,000	31.13	1,116,333,000
1913.	36,030,000	26.36	949,645,000
1912.	37,260,000	21.20	790,064,000
1911.	39,679,000	20.54	815,184,000
SHEEP.			
1914.	49,719,000	4.04	200,803,000
1913.	51,482,000	3.94	202,779,000
1912.	52,362,000	3.46	181,170,000
1911.	53,633,000	3.91	209,535,000
SWINE.			
1914.	58,933,000	10.40	612,951,000
1913.	61,178,000	9.86	603,109,000
1912.	65,410,000	8.00	523,328,000
1911.	65,620,000	9.37	615,170,000

LA FAYETTE STOCK FARM

Largest Importers in America of Percheron and Belgian Stallions and Mares. Over 200 head on hand. When your locality has a horse from this great farm every one knows he is the right kind. Write us or come and see us.

We are also breeders of pure bred Hampshire Swine.

J. Crouch & Son, Props. La Fayette, Indiana



March Term of the Breeding School

The last term of the Scientific Breeding School to be held before the next breeding season, will be held March 2 to 7. A lot of breeders have asked for a term at that time, as they were not able to attend a former term. This will give the breeders an opportunity to attend the school and go right home and put their work into practice.

This will be the last opportunity until next August. The owner of every good stallion and jack should consider this question seriously. It not only means a benefit financially, but the business can be made pleasant and interesting and the breeder be of more service to the community. The breeder who depends on natural service alone is more in need of this school than those who use the capsule system. The competitor who is able to diagnose all barren mare conditions will be the successful man in a community, as a rule. Diseased mares are not very easily diagnosed without some special training. Some of the strongest looking mares may be the worst specimens to contend with. It would not be very profitable to have many of these mares booked to a stallion and scatter this disease among the other healthy mares, through natural service.

Hundreds of testimonials from those who have attended this school have been received and published. If it was not successful these breeders would not have given these testimonials. Their names and addresses have been given so that practically every breeder in this country could have telephoned some one of them. Following are a few testimonials which have not heretofore been made public:-

Jan. 15, 1914.—I have attended the Graham Scientific Breeding School from the 5th to the 10th of January of this year, this being the second term that I have attended. I am very much pleased with the instruction that we receive at this school. After one has attended one term they would not be without the knowledge gained in horse breeding for many times the cost. I would not undertake to enumerate the many phases of the breeding business that I have learned at this school, and which will be of value to me in the future. I would recommend this school to any one in the breeding business that wants more knowledge in that line.—W. H. Bayless, Pres. Blue Valley Stock Farm, Blue Mound, Kans.

Jan. 10, 1914.—After attending one course given at the Graham Scientific Breeding School, I don't think any person, whether a mare owner or a stallion owner, can successfully carry out his work and be a benefit to his community, without attending this school. The dissecting of mares alone with the genital organs there before your eyes, showing the different diseases and barrenness that are found in many mares, is well worth the tuition.—C. L. Sabin, Bagley, Iowa.

Jan. 5, 1914.—Your breeding school is just excellent. I am sorry I cannot attend every meeting.—Emil F. Lorenz, Jamestown, No. Dak.

Jan. 12, 1914.—I hold your school in high esteem and expect in the future to attend again, as I can get better instructions there than anywhere, and consider it worth anyone's time and money if they go and apply themselves.—A. H. Halloway, Warsaw, Mo.

Jan. 10, 1914.—I have heard this school highly recommended, but can now say that it is just as good in my opinion, and the care of us both from a moral and business standpoint, cannot be excelled.—R. G. Green, Gibson City, Ill.

Jan. 1, 1914.—I attended the November, 1913, class at your school. I received a great deal of knowledge from the instruction, and predict for the Graham Scientific Breeding School a great future.—J. M. Shanlis, Rocky Ford, Colo.

Jan. 2, 1914.—I attended the Graham Scientific Breeding School in 1913. I think it is the thing every breeder ought to do. I am going to attend again the very first term I can arrange to get away from home. —H. A. Ringer, Jasper, Mo.

Jan. 1, 1914.—Your school is a great benefactor to those in the breeding business—was far beyond my expectations. I cannot praise it too highly to those who are hesitating on going. —Amos Carr, Collins, Iowa.

Dec. 31, 1913.—I have attended two terms of the Graham Scientific Breeding School and think it a fine thing. Any of the lectures are worth the money. I think any man who raises horses or mules, whether he has a stallion or jack or not, should attend the school. You need not be afraid to send your boys.—J. E. Leier, Ringwood, Okla.

Dec. 27, 1913.—I attended the Scientific Breeding School last August and money could not buy nor replace what I learned there. I found the nicest and cleanest bunch of men I believe I ever met, and the instructions given are worth ten times what they cost. If I lived close I would not miss a single term, but I intend to be there again at the first opportunity. I am certainly proud of my button that you sent me.—S. R. Oliver, Indian Creek, Texas.

PERCHERONS
For Sale

Two iron grey mares, Crouch's importations, 8 years old in spring; safe in foal to imported horse; weigh over a ton; sure breeders. Also their two yearling fillies and their two stallion colts. The mares are champions of the state. The fillies won first and second as colts, and in two classes as yearlings at Fort Worth Stock Show. The horse colts took first and second in two classes; the blue ribbon filly took the red as champion mare against all aged mares. They are high-class; sound; good feeders; thoroughly acclimated. They are too classy to sell at living prices in this country.

JOHN W. WRAY, FT. WORTH, TEX.

For Sale, Percherons

Two black mares two years old, matched. 1 gray mare two years old. All registered. Also 3 weanling stud colts. Eligible to registry.

FRANK DAVIDSON, Breeder,

Ruskin, Nuckolls County, Nebraska.

PERCHERONS FOR SALE.

I am offering an extra fine lot of coming two, three and four year old stallions for sale. Large draft kind with large clean bone. Also some extra good mares in foal. Will be priced worth the money.

E. D. SEAMANS,

Salem, Henry County, Route 1, Iowa.

FOR SALE.

Two imported Percheron stallions; one black; six years old; weight 1,900 pounds. One gray; 7 years old; weight 2,000 pounds. Both are sound and sure foal getters. Can see colts.

One grade stallion, 2 years old.

H. M. RIDER AND F. V. THOM,

Rushmore, Minnesota.

STUD COLTS

For sale. Coming twos; their bone, breeding and quality make them fit for a herd horse. Each will weigh a ton at maturity. Will sell cheap. All recorded in P. S. A. and sound; weighing 1,500 at 20 months in growing condition. $500 for choice. Mention this paper.

AMOS HANSON, Collins, Iowa.

PERCHERONS AND BELGIANS.

54 imported and home bred stallions and mares. New importation in September of big bone 2 and 3-year-olds. Weight, 2100 pounds. Look us up. We can suit you. Reference, any bank in Jones county. WM. A. HALE, PROP. GRAND VIEW FARMS, ANAMOSA, IA. 25 miles northeast Cedar Rapids.

Imported Percheron Stallion

For sale. Black; six years old; weight 1950; sure breeder. Colts to show. **J. E. DREIER, Hesston, Kans.**

TWO IMPORTED PERCHERON STALLIONS.

One is dappled grey; 7 years old and weighs at present about 1950. One of the surest horses that ever lived; has gotten between 80 and 90 per cent of his mares with foal every year I have owned him. Is also thoroughly broken single to drive anywhere, and a boy can handle him, as he is one of the nicest horses to handle in or out of harness.

One is a blue roan; 9 years old and weighs 2,200 pounds in good condition. This horse is also a sure foal getter and is broken single to cart; is one of the best actors for a big horse that you can find anywhere.

These horses are for sale and will be sold at any reasonable offer. For prices, breeding cards and photos, apply to

JOS. CLARK, Box 97, Canton, Ill.

PERCHERON STALLION

For sale. An extra good one; coming 10 years old; black; guaranteed O. K. in every way.

D. B. JENKINS, Jewell, Kans.

PERCHERON STALLION

For sale. Dakar, Jr., 54822; P. S. of A.; 5 years; coal black; sure foal getter; fine disposition; possessing as much style and action as can be found in a Percheron horse. Won first premium at the Barton county fair last fall as a sire and four best get, in competition with imported Bosquet. Good reason for selling. Could use a good team as part pay.

H. R. Baird, Pawnee Rock, Kas. Rte. 1.

IMPORTED BLACK PERCHERON STALLION FOR SALE CHEAP.

Gravina 50728 (71374); sire Bon Marche 45869 (55741) by Casino 27830 (45462); dam Rustique (50456) by Ooltaique 25159 (43193); second dam Pella (40342) by Francais 15747 (20374). Gravina is a sure foal getter; colts to show; 7 years old; weighs 1,750 pounds in breeding condition. Reason for selling: Want to dissolve company. Might take registered mare or fillies in trade, but no stallion.

HAMANN, SACHS & JAGORO,

Aug. Hamann, Mgr.,

Danvers, Minn. Route 2.



FISHER & WALKER Importers and Breeders of **PERCHERON HORSES** and dealers in Standard Bred Horses, Tennessee and Kentucky Jacks.

Main barn, 1215 E. Missouri St., Evansville, Ind. Branch barn, Clarksburg, W. Va.

All stock guaranteed and priced right and terms to suit customer.

References, Banker's National Bank.

BARGAINS, IF SOLD BEFORE MAR. 1.

One Percheron stallion; black; 10 years old; 1900 pounds. One Symboler stud colt, as good as they make 'em; bay; 2 years old; 15¾ hands; 1100 pounds.

One black jack with white points; 10 years old; 900 pounds; sure and quick server. All registered.

F. E. KNOWLES,

255 North Market St., Wichita, Kans.

Two Percheron Stallions

For Sale. Coming 3 years old; registered. Price, $400 for choice.

W. E. DUSTIN, Topeka, Kans.. Route 1

MAPLEWOOD PERCHERONS.

A choice selection of stallions and mares. Buy them direct from the farmer and breeder at farmer's prices.

C. G. ANDERSON,

Hector, Minn. R. 5. C. M. & St. P. R. R.

Dec. 26, 1913.—I have been breeding Percherons for 25 years and have tried to keep myself posted, but questions are continually arising that I do not understand. The country is full of barren mares and I realized I must do something or quit the business. Although pressed for time I attended the August term of the Graham Scientific Breeding School, and felt well repaid for both time and money expended. I can heartily recommend it to all stallion and mare owners.—F. T. Wallace, Assumption, Ill.

Dec. 31, 1913.—I think the school is all right. Any man who attempts standing a horse without first attending this school uses very poor judgment. It is worth the cost to any man who owns mares, whether he handles a stallion or not. The moral lectures are worth more than the tuition fee to any young man.—A. R. Anderson, Sioux Pass, Mont.

Jan. 6, 1914.—I think the Scientific Breeding School is one of the things that stallion men cannot afford to leave out of their business. The information given there is worth many times the cost of attending. I want to attend another term soon.—H. M. Stephens, Munden, Kans.

Dec. 31, 1913.—I decided it would be to my interest to attend the Graham Scientific Breeding School (as I own two of Kentucky's best jacks), so after attending the November, 1913, term, I feel I am in possession of knowledge that will be of inestimable value to my patrons in the way of preventing the spread of contagious diseases among their mares, and to myself of being able to do the service of three or four jacks with one of mine. I aim to make it a point to attend one term of the school each year.—J. P. Brown, Enid, Okla.

Jan. 4, 1914.—I think the Breeding School is all right. Would like to be with you at the next term, but can't, will come later. Much obliged for the button.—W. F. Wilson, Halsey, Oregon.

Dec. 29, 1913.—I attended the Graham Scientific Breeding School during the August, 1913, term, and I feel well paid for doing so. The lessons in the American Breeder last spring got me started right. There is more to this breeding business than most stallion men think. I learned some of the lessons well, but some of them I did not. There was so much to learn in six days. I expect to be with you again.—Tom Sellers, Vinton, Iowa.

Dec. 28, 1913.—I think there is nothing like your school, as it is surely money well spent and any one in the breeding business cannot afford to get along without it. Any one lecture is worth the price.—Geo. W. Nowels, Cloud County, Kans.

Dec. 13, 1913.—Received my button and I am sure proud of it. Mr. Cudd visited my place. We had a big time. Every one here fell in love with him. He made one of the finest lectures here at our church to the young people Wednesday night I ever heard, and it surely had the effect on the people that we needed. Mr. Cudd is certainly a great man and he is in a great work. I can hardly wait to get back to your school as I believe the week I spent there was one of the best weeks of my life, and I am putting forth every effort to send as many of my neighbors and stallion owners to the next term as I can, and I think there will be a number from this neighborhood there at the next term. I have shown them that their boys will be cared for as a father would care for them. One man asked me the other night if it would pay him to go, as he only had six mares. I told him it would pay him if he only had a she goat; that he would learn how to care for mankind if nothing else. I had a mare dissected on the ground here Tuesday and opened several of their eyes, as several of them had never seen anything of the kind before. I cannot say enough for the school, as words cannot express half enough.—L. R. Hughey, Alva, Okla.—Advertisement.

SALE OF PERCHERONS

Wednesday, February 18th, at Enid, Okla.



Our Champion Stallion, Imp. Hautain 63719 (75605)

24 Registered Stallions and Mares.

12 Stallions; 9 ready for hard service.

12 Mares and Fillies; 6 safe in foal to the champion stallion imp. Hautain 63719 (75605).



Our Champion Percheron Mare, May Queen 66172

This sale will include most of our 1912 and 1913 show herd, including the champion mare, May Queen 66172, probably the best mare that will be sold in a sale ring this year, in the United States, and also the undefeated show filley, Coretta.

Sale will be held in the city of Enid, at the Delmar Garden, Steam Heated. Write for catalogue at once, mentioning American Breeder.

AUCTIONEERS: Snyder, Burgess, Shanks and Rainey.

W. S. BOLES & SONS, Enid, Oklahoma.

AN OLD TIME STOCKMAN'S ADVICE.

To the American Breeder:—I feel it is my duty to write, whether this letter is published or not. It was four years last August since I first attended the Scientific Breeding School and have attended a couple of times since and it will be two years next January since I attended the last one. I fully intended to attend the November term and be there for both cattle and horse schools, but I was tied up in business affairs and could not get there.

Now brother breeders and mare owners, in behalf of yourself and country, I would like for each one of you to attend the school. No matter how small a breeder you are, if you expect to stay in the horse business any length of time, you can't afford not to attend this school. It will give you a foundation to work on. It puts you in position if you are standing a sire, to detect a good clean mare from a diseased one. There are mares scattered all over this country of ours that we would not breed with the natural service under any circumstances if we only realized what we were doing. But there are thousands of stallion owners to-day that are doing this because they do not know any better. When those old "skates" come to our barn and they look O. K. on the outside, we will serve them with a stallion or jack. Then we breed mares as they come, scattering this disease as we go, and making barren mares out of good clean healthy ones, and we must understand that the inexperienced breeder is up against it worse each year, for the other fellow is turning those old "skates" down.

Some mare owners know "Old Kate" is all O. K. because she raised a colt last year, and if one man will not breed her he will go to someone else. You are the men who get "Old Kate" on your books. Then the next year we wonder why we did not get a better colt crop.

Mare owners, get in position to protect yourselves. We are guilty of our part of those mistakes. If we will make a trip to Kansas City to one term of the Graham Scientific Breeding School, a great many of our wonders in the breeding business will be solved. I have been in the horse business for more than 25 years and thought I knew a little something about horse breeding but found that it was very little compared with what there is to learn. In fact I did not know anything, and if you are just an average breeder, there is room to learn.

Now a word to those who have boys that they would like to send. This is anything but a "rough house." They will hear lectures here for the up-building of humanity that they never will forget. Besides the students that attend this school, are as fine a set of men as I ever saw; men that are there to learn, and the manager and instructors are to be appreciated by all who stand for the betterment of our country. Let us plant our feet on higher ground.—H. S. Record, Eddy County, N. Mex.

WOLF BROTHERS

Imported & American Bred Percherons and Belgians

Note winnings of our horses at two of the leading Western shows.

NEBRASKA STATE FAIR, 1913.

Percheron stallions open class: First, second and third in two year olds. Junior championship and first for best five stallions.

Percheron mares open class: First in three year olds and Grand champion mare was imported and sold by us.

Belgian stallions: First in yearlings; first, second and fourth in two year olds; first, third and fourth in three year olds; second in four year olds and over. Senior champion and Junior champion stallions.

National Western Live Stock Show at Denver, Colo.: Percheron stallions open class: Third in yearlings; first and third in two year olds; first in three year olds; first for five best stallions and reserve champion Percheron mares; second and third in two year olds; second in yearlings.

Belgian stallions: First in yearlings; first and second in two year olds; first and second in three year olds; Senior champion and Junior champion stallions.

These horses are all for sale at reasonable prices.

ALBION, BOONE COUNTY, NEBRASKA.

PERCHERONS at PRICES

that will profit early buyers of both stallions and mares. The mares range in age from 4 to 8 years old, and the stallions from 3 to 5. I have been in the business a long time and wish to reduce my stock. These are all good ones. If sold in a bunch I will make the price right.

I. H. VANNORSDEL, Kingsley, Iowa

PERCHERON STALLIONS.

A choice pair of two year olds blacks; plenty of size and bone.
A. M. DULL & SON, Washington, Kas

PRICED TO SELL.

A dark iron gray three-year-old registered Percheron stallion; weighs now 1,800 and should mature at a ton. Extra heavy bone; well proportioned; a good server; gentle and broke to work. Sired by Minet 44897 (60963) and out of a $700 black 1900 pound mare; other colts to show her breeding.

If in the market for an extra good stallion at a breeder's price, call or write at once.

F. P. FREIDLINE, Caney, Kans.
Route 1. Bell Phone.

15 Percherons For Sale

Have as choice a lot of Percheron stallions and mares, from weanlings to 7 years old, as are to be found in the West. My colts are pasture raised; my stallions weigh better than a ton at maturity; are sound and sure breeders; at farmer's prices.

D. TEINERT (Route 4) YORK, NEBR.

THREE GOOD STALLIONS

Two Percherons and one Clydesdale; all registered; one 8 years old; dappled grey Percheron; weighs 2100. An extra fine breeder. One coming 3; steel grey Percheron. An extra fine colt; will make a prize winner. One Clydesdale; 5 years old. A beauty that can show bone and quality with any one. If you are looking for a good stallion, come and see me. On M. & St. L. R. R., Monmouth, Ill.

L. E. DITTO, Seaton, Ill.

I. C. EVANS, Troy, Iowa

IMPORTED AND AMERICAN BRED PERCHERON STALLIONS AND

mares for sale at right prices. Recorded in Percheron Society of America. If in need of a good stallion or mare, you had better get busy, and buy of me. I will guarantee square dealing with the right kind of stallions and mares to satisfy you, with quality and weight.

Percherons

For sale, One imported, nine years old; weighs 1850; black. Two coming three; black and grey; weight 1850 and 1800. Will make a ton each. Buy them of the farmer and breeder.

CHAS. E. WARREN,
Sutherland, Iowa.



FIFTY STALLIONS AND MARES.
$250 to $1000 Each.

Write for my illustrated **Circular telling why I can save you money on** the purchase of Percheron or Belgian stallion or mare.

A. W. GREEN,
Middlefield, Ohio.

R. R. Sta., E. Orwell, on Penna. Ry., between Ashtabula and Warren.

Percheron Stallions

For Sale. Seven head of registered stallions, ranging in age from 1-year-olds to 7 years, and one imported stallion. Also a few mares, mostly all black. Will sell at a bargain. I also have two good stallion colts under one year old for sale.

J. T. SCHWALM, Baldwin City, Kans.

Imported Percheron Stallion

For sale. We have a Percheron stallion at Huntley, Mont.; weight over a ton; good breeder; a good horse in every respect; black as coal. Bred over 80 mares this year at $20 to insure colt to stand and suck. Will sell him cheap. Write

FIRST BANK OF THAYER, Thayer, Ia.

Pure Bred Percheron Mares

For sale; in foal to prize winning stallion; registered in P. S. A.

C. P. O'DONNELL, Winchester, Ill.

PERCHERON STALLIONS

For Sale. One 6-year-old; dapple grey; fine specimen; great breeder, registered. One coming 2 years old; registered; bay. One black pure bred Percheron stallion 10 years old; weight over a ton. Address—

COL. E. H. URTON, Clarksville, Ohio

REGISTERED PERCHERON STALLION

For sale; weight 1900; 9 years old; an extra good breeder and sure foal getter. First draft for $350 gets him.

C. E. HODGDEN,
Galesburg, Neosho County, Kans.

Breeding School By Mail?

A western subscriber asks if it would be possible to conduct a breeding school by mail. Unfortunately only a very limited number of men are familiar with technical terms. Anything intended for the average man must necessarily be printed in plain language. The dissecting of mares and the actual examination of live animals is difficult enough when men are present and the best instructors employed.

We have printed a few technical articles which have not been very satisfactory, and we know that in order to get the best results plain language must be used. No man knows better what the horse breeders of this country need, to increase and improve production, than does the editor of this paper. He has visited them in their homes in practically every section of this country, and has visited them in foreign countries, as well. The American Breeder gives the best instruction that can be obtained by mail, for such breeders. It goes as far as is practical for the average breeder until he has had some special training and instruction, and (at a very low cost) gives more of the information which its readers need in their business than they can get at any price from any other papers or books.

There are some who are opposed to the Graham Scientific Breeding School, who would not be if they had given this matter sufficient study. The editor of this paper owns the Scientific Breeding School. He realized that in order to be useful as a newspaper man he must make something new appear in each and every issue of the American Breeder. No editor can remain in an office and draw on his imagination for a great length of time. He must have some strong source of reliable and up to date information. The best and most practical way to get in touch with live information from the breeders is to attend their meetings and be with them. Practically every one of these individuals can advance some new and useful idea or plan which he has followed successfully. It is easy to get this information through the experience meetings. Such men are glad to talk, as a rule, but a very few of them ever write for publication.

In addition to the new and useful information obtained from this class of men, their problems are also brought out. Most of the investigating which the writer has done has been as a result of suggestions from these breeders made at these meetings In addition to that, those who have attended this school, developed a permanent interest in the work and received some technical training, provide the very best possible help in working out these scientific problems past the experimental standpoint, so that they can be adopted by the horse breeders of this country generally.

The Graham Scientific Breeding School and its students have (through the American Breeder) done more for horse breeders in the way of bringing out new and useful information than have all other agencies combined. The communication and association with these breeders, coming as they do from practically every section of the United States, makes the American Breeder an authority on the results of their trained experience. In the case of a disputed question there are hundreds of these students who are ready to testify understandingly concerning modern methods. These men are so well distributed over the United States, and in such large numbers, that they are of wonderful benefit to the American Breeder. In fact, many of the articles through which we are able to give our readers the proven facts of the business, have developed wholly or in part from the experience and observation of these students.

It will be apparent that this demand for more advanced material in the American Breeder has come only from those whose opportunities for schooling and training have been exceptional. Many of these (including numerous graduate veterinarians) have later attended the Graham Scientific Breeding School, some having been to as many as three sessions of this school. They are now, not only outspoken in their approval of our course in making the paper to fit the needs of the great majority of our readers, and of the farming and stock raising public generally, but have many times testified both personally, and by letter, to the increasing benefits, they receive from their study of the paper, as a direct result of the better insight which their training in this school has given them.

We have gone into this matter at some length, but the relation of the American Breeder to the Graham Scientific Breeding School, and the benefits which our readers derive from the latter, are important and we want them clearly understood.

MARE QUALITY ALSO NEEDED.

To the American Breeder: Your paper is sure a breeder's paper. I think we have to have the right type of mares as well as stallions. Please give us a good picture once in a while of those good brood mares.—O. B. Lacy, Hamilton County, Ind.

Note.—How did you like the teams of draft mares on the cover, November 20.—Editor.

4 GOOD PERCHERON STALLIONS.
Two Are Imported; Two Home Bred.

And all ready for service. These are for sale at reasonable prices. I have also for sale several younger stallions and some imported and American bred mares and fillies, all good.

MANUEL CROSS, Adrian, Minn.

FARMERS

I can save you money on good, heavy boned, rugged Percheron stallions from a strain that are producers. They have never been beaten in a show ring. If you don't find these as represented will pay your expenses. For particulars write.

A. U. DUNBAR,
Galesburg, Ill. Route 1, Box 12.

HORSES AT PUBLIC SALE
February 18.

At my farm near Elmore, Minn. Imported Percherons and Belgians. I am going to retire from the business and offer these well known strains at public sale. Belgian, Cortil 4995. Percherons, Marcel 22nd 90564, Ironie 80407 and one registered filly. Write us for more information. It will pay you.

PAUL C. OLDENBURG, Auct., or GUST. WUDTKE, Owner, Elmore, Minn. On C. & N. W. and Omaha R. R.

PERCHERON STALLIONS

IMPORTED AND HOME BRED.

To dissolve partnership we will sell two black imported stallions weighing 1850 and 2100 pounds; sound; sure foal getters. Priced to sell. Also have home bred stallions from weanlings to coming three year olds for $250 to $500. For particulars. address

C. B. DANNEN & SONS, :-: Marshalltown or Melbourne, Iowa

PERCHERONS, BELGIANS AND GERMAN COACH MARES AND STALLIONS

of all ages for sale. I have recently taken over the entire stock of horses formerly owned by the firm of Ives & Bellman and can furnish patrons with first-class breeding stock of the foregoing breeds. Have a fine lot of 2 year old and older stallions to select from. Address,

WILL BELLMAN, R. 1., Delavan, Wis.

IMPORTED AND HOME BRED STALLIONS AND MARES.

PERCHERONS, BELGIANS, SHIRES.

The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perche this year. See what we have before buying elsewhere. **Address Hart Bros., Osceola, Iowa.**

PERCHERON STALLIONS

For sale. Eight head of two year old stallions (coming 3); one 5 year old stallion, also yearlings and weanlings. All recorded Percheron Society of America. Blacks and greys. Good individuals and priced where you can afford to buy.

WRIGHT BROS.,
Mt. Pleasant, Henry County, Iowa.

REGISTERED PERCHERON STALLIONS

For Sale. One large dapple grey; coming 4 years; extra well made and heavy boned; weight 1950 pounds. One dark grey coming 3 years old; a fine individual; weight 1750. Also one or two weanling stud colts; dark grey. Prices very reasonable.

F. E. AIKMAN,
Lyons, Clinton County, Iowa. Route 1.

PERCHERONS.

Young Stallions—Brood Mares.

Stallions coming 2 to 4 years; mares all ages. A big, rugged, drafty, heavy boned lot, with plenty of quality and action. Blacks and greys. A large per cent sired by our herd horse, Superior 40605; weight 2300. Our horses are roughing it and are NOT overloaded with fat. JAMES LOONAN & SON, WATERLOO, IA. Farm 3 milee from Hudson; 8 miles from Waterloo.

Percheron Stallion

For Sale. Hoosier 65573; color, blue-grey; 5 years old; weight, 1800 pounds in work flesh. Colts to show. A very good individual and priced to sell.

POWELL BROTHERS,
WEISSERT, Custer County, NEBR.

STALLIONS AND JACKS

For sale. Three registered Percheron stallions; two black; one brown; weight 1,800 to 2,000 pounds. All good ones. Two standard and registered bay drivers; 1,100 to 1,200 pounds each. Also three jacks; two large Mammoth; 9 years old, and one black, 3 years old. Will sell or trade for land, any or all of them. Come and see them, or write

ELI SMITH, Cushing, Okla.

PERCHERON STALLIONS

FOR SALE, from weanlings to 4 years old. All of my own breeding, including the prize winners at the Illinois State Fair. Have dams and sire to show. Buy from the breeder and save money.

J. P. DETWEILER, Congerville, Ill.
Between Bloomington and Peoria, on L. E. & W. R. R.

4 PERCHERON STALLIONS

all under 32 months old; sound; big flat bone kind. Price from $300 to $700. Write for photos and more description. The largest 32 months, weight 1800. He has won sweepstakes over aged stallions.

S. S. LANGFORD, Craig, Nebr.

1 Stallion and 2 Jacks For Sale

The stallion is a registered Percheron, 2000 pounds; in good flesh; black, with star. The jacks are both black with white points; 14½ hands and 15¾ hands. All three animals are extra good. Address—

E. A. JACKSON, Monroe City, Mo.

PERCHERONS

I now have on hand a very choice lot of good young stallions and mares of all ages that I am offering at bargain prices. Terms to suit. Will also furnish horses of all kinds on orders from one to car load lots. Barn in town.

A. R. IVES, Delavan, Wis.

75-PERCHERONS-75

Thoroughly acclimated. Young; good colors and very high class.

CRANDALL & DANFORTH,
Randolph, Minn.

150 STALLIONS

Imported and home-bred stallions. I guarantee to sell you stallions for less money than any firm in America. Come to a Live Horse Market and see all draft breeds. Reference, any Bank in Creston. **A. Latimer Wilson, Creston, Iowa.**

PERCHERON STALLION.

FOR SALE—Registered: Dark steel grey; coming three years old; weighs 1750; has great bone; deep in girth; short in back; good feet; fine style and action; a good disposition. For particulars write

W. P. BLUCK,
Steubenville, Ohio. Route 1.

CLOVER LEAF FARM PERCHERONS

Imported mares in foal, and yearling stallions and weanling stud colts for sale. Come and see them.

Peter J. Tisserat
Perry, Dallas County, Iowa.

PERCHERON, BELGIAN, SHIER AND HACKNEY STALLIONS AND MARES

Imported and American-bred; 2 to 4 years old. Prices on most all $700 to $1,000.
Lew W. Cochran, Crawfordsville, Ind. Office 205 Ben Hur Bldg.

Percherons and Belgians

Home raised Percheron and Belgian stallions for sale. One coming four years old; two coming two years old; one coming one year old. Three Percherons and one Belgian; good colors and size; will mature into ton horses.

W. R. HAWKINS,
Ravenna, Buffalo County, Neb.

Three Percheron Stallions

For sale; two two-year olds and one yearling. All registered in Percheron Society of America. Will sell cheap.
HUGO WESTERMAN, Lake View, Ia.

A Bargain

I am forced to sell at a loss a fine Percheron stallion that has show quality, and the very best of breeding. His photograph and breeding will gladly be sent to any interested party. Farm is 26 miles from Chicago.
L. E. TOMPKINS, Palatine, Ill.

PERCHERON STALLION

For sale. Recorded; coming 3 years old; sound; sire's weight 2,200 pounds; dam's weight 2,000. I also have a Percheron stud colt under one year old for sale.
C. D. CUTTER, Coln, Iowa.

PERCHERON AND BELGIAN

Stallions. Can show the buyer one stallion or 50 head at prices from $450 and up. Some weigh 2,160 pounds. Also ten good breeding jacks. For sale, part cash and the balance on long time payments, 1, 2 or 3 years at 6 per cent.

R. I. LITTLE,
Fairfax, Iowa. Route 2.

PERCHERON STALLIONS AND MARES

For Sale. All ages; registered; good bone and lots of quality; weight, 1700 to 2100 pounds. Bred and priced right. Why not buy your next stallion from a breeder and save dealers' profit. Twenty years a breeder.

R. F. D. No. 4
J. C. ROHRS, NAPOLEON, OHIO

Questions and Answers

(Continued from page 9.)

686 — CHRONIC LYMPHANGITIS — Nine year old draft stallion was worked all winter two years ago and run down in flesh. Then fed too heavy on corn; one of his hind legs swelled up, which is hard to the touch. It does not bother him except it is a little stiff when he steps over something. It is increased considerably in size. He is in thrifty condition and feels good.—South Dakota Subscriber.

REPLY—We are of the opinion that it is too late at this time to treat this case with any satisfaction, for the reason that the parts have become quite thoroughly organized. You can prevent an increase of size of the parts by giving the horse moderate daily exercise. Slow work daily is the best remedy.

687—MARE FAILS TO COME IN HEAT—I have a registered Percheron mare, 11 years old; her last colt is about seven weeks old now. She has been a regular breeder and never refused the stallion on the ninth day till the last time and has been tried regular since that time, but never found her willing to take the horse. Seems to be feeling good and in good condition, also colt. Could you give me information as to what is the cause, also what to do to get her in foal again?—Kansas Subscriber.

REPLY—Occasionally a mare will show signs of heat for one sire and refuse for the other. You can let this mare go over until spring when the weather is warm and if she does not show signs of heat breed her with a capsule at any time. This should have been done before the colt was nine days old. You may have difficulty fertilizing this mare until the colt is weaned. When a mare has cleaned nicely and is in a thrifty condition she should be bred before the colt is nine days old for the best results. After the milk flow has started, and especially in the case of heavy milkers, they may be fertilized with difficulty.

688—FISTULOUS NAVEL—I have a jack colt that was foaled August 25, 1913, out in the pasture and there was a heavy dew the night he was foaled, and he was so weak I couldn't move him to the barn for several days. His navel cured up very nicely, but has discharged pus continually ever since; sometimes it will swell up as big as a goose egg, then go away till you can scarcely see it. He is growing very well and eats hearty. Please give me a remedy.—A Subscriber.

REPLY—We hesitate to advise you to inject anything into the parts affected for the reason you should have a competent veterinarian look after this case with a view of opening it up and removing a necrotic area that does not become sound. There is something wrong within and until the spot is found and removed we fear you will continue to have recurrences of the difficulty.

689—FEEDING A HORSE—Have recently purchased a natural walking stud. I have been feeding him seven ears of corn night and morning and five at noon, fodder at morning, clover hay at noon, red top at night, also feed about six quarts of oats per day. He gained ten pounds the first two weeks, 10 pounds the next week, 15 pounds the next week following. What is the best feed to feed a horse to put flesh on him, and how to feed him? The horse weighs 1200 pounds.—Tennessee Subscriber.

REPLY—If you wish to fatten this horse the feed you are giving should get good results.. You might increase the weight more rapidly by feeding corn and clover only, without any exercise. Heavy feed of this kind should not be accompanied by any exercise. The grain ration can be gradually increased to the extent that he cleans it up nicely. The health of your animal for future purposes will be better on the ration you are now giving him, and still better on oats and bran, equal parts by measurement, with a part of the roughness timothy or prairie hay.

690—COLT SWEATS—We have a registered Percheron stud colt coming two years old in March, that runs out in day time with a two-year-old gelding, and is put in a shed at night. His feed is three quarts of oats, one quart of bean meal ground, two ears of corn, and one handful of oil meal twice a day, all the salt he will eat, and plenty of good timothy hay, with water twice a day. This colt sweats in the shed even on cold nights. The sweat does not smell very good. He has a very heavy coat of hair. Their window is open at night.—Ohio Subscriber.

REPLY—If you are satisfied the sweating is not due to warm housing coupled with a heavy coat, it will be in order to attempt treatment, otherwise give still more ventilation, which is advisable in any event. In a general way the winter thus far has been quite an open one and horses sweat easily with their long winter coats. If after trial he continues to sweat, give him one-half ounce of Fowler's solution in the feed morning and night, and 40 drops of the fluid extract of Belladonna in a tablespoonful of water at noon. Give the latter by way of the mouth with a hard rubber syringe.

691—SERVICES FOR A TWO-YEAR-OLD BULL—I have a registered bull two years old. How often can he serve without it being injurious to him? How many times should he serve to the cow?—Tennessee Subscriber.

REPLY—If you will limit this bull to two services a week for ten weeks you will get better results if you expect to keep this bull a number of years; no two services closer than two days. A bull can make more services, age and condition considered, than a stallion. If you expect to dispose of this bull for butcher purposes after the season is over, he can make many more services than specified. Many of our best bulls are ruined by too many services before maturtiy. More of these animals are sterile from this cause at an early age than stallions. It is surprising to know how many valuable animals of this class quit producing before they are seven years of age, and their owners do not know why.

692—ULCERS ON JACK'S LEG—I would like to know what is the matter with a young jack we have. He has small ulvers on the inside of his left hind leg. When they first swell they are cone-shaped and when they break and the scab is off there is an opening about one-half the size of a dime. He has eight or ten on the one leg and none on the other. The bloody matter drips for two or three days after one of the ulcers open. The jack is about 18 months old.—Kansas Subscriber.

REPLY—We very much fear your jack has become infected with a certain fungus that is capable of producing small boils or abscesses. We would advise you to have a competent

Automatic Stallion Bridle



Manufactured Exlusively by Peter Young, Assumption, Ill.

Controls the most unruly stallion without injury and will not hurt the kindest and most docile horse. Fits the largest draft stallion or the smallest roadster without adjustment. Made of the best leather. Shipment will be made on receipt of order, as I have them in stock at all times.

Order one, and if not satisfactory, return it and your money will be cheerfully refunded. **Price, $5, with order.** Can be sent by mail.

Breeding Stock Horses and Mules

Public Sale Feb. 14

1 pure bred Percheron Stallion, Frank Gotch, dark chestnut, 16¼ hands, 1,850 lbs., in ordinary flesh, sound, broke to all harness, kind, gentle, and the best breeder in this country.

5 Jacks—Leo, Captain Duke, a 30 months jack, and two coming yearlings.

The mature jacks, Leo and Captain Duke, are 6 and 8 years old. Leo weighs 1,000 lbs., 15 hands, sure, works for anybody, colts to show. Captain Duke is the biggest 15-hand jack in this country, long ear, big bone, sound and sires big mules. The young jacks are extra large.

Other stock includes pair horse mules, 8 and 9 years, 2,700 lbs.; pair horse mules 3 and 4 years, well broke, 15½ hands; pair mare mules, 3 years, 16 hands, well broke; pair fillies, 15½ hands, well broke; pair mares, 5 and 6 years, black, 15¾ hands, 2,750 lbs., sound, pullers, broke to everything and afraid of nothing; pair matched chunks, 2,400; other mules, horses, implements, etc.

ED EARLY, POLO, MO.

Sale at my barn in Polo.

FOR SALE, IF TAKEN SOON.

Black Percheron stallion. Small star and snip. Registered in P. S. of A. Four years old. Weight 1,900 lbs. He is a low down blocky horse with two broad ends and a wide back. Stands up straight on his limbs. A sure breeder. Has a very large bone and is a show horse. State license. Sound and right in every way. Any boy can handle him. Price $900.

Also his half brother, black with star and small spot on nose, coming 2 years old. Sound and right in every way. Is registered and will make an 1,800 pound horse. Price, $250.

Also Clydesdale stallion coming 3 years old. Strawberry roan. Perfectly marked. Registered in American C. D. Association. No. 17501. Is a grandson of Benedict (10315) 9300. He is a low down blocky horse. Weighs 1,700 lbs., and never was defeated in the show ring. Has a large neck, stands straight on his limbs. With great style and action. Sound and right in every way. Price, $700.

Can't use these horses on my mares is the reason for selling. Also 2 registered Clydesdale mares. Heavy in foal. Sound and right in every way. Weight, 3,600 lbs., when matured. Price, $700. If this stuff is not as I say they are, I will pay expenses.

C. H. WEMPE,
Seneca, Nemaha County, Kansas.

TWO STALLIONS TO SELL.

One imported black Percheron; well bred; No. 60185; 6 years old; weighs about 1900 in flesh. Is gentle and sound and good foal getter. Has been in service on my farm since 1909. Fillies in the way.

One standard bred stallion, of trotting blood; No. 45384; dark bay with small star; about 16 hands high; weighs close to 1200 pounds. Very fine style and a good driver; also a good foal getter; 9 year old; in service on my farm for 5 years. Fillies in the way.

Both the above stallions have been examined twice; the last time in spring of 1913 by Division of Animal husbandry of the State Agricultural College of North Dakota, and reported as free from all infections, contagious or transmissible diseases or unsoundness. Both these horses gave me good satisfaction. For prices write to **M. F. Hrabe, Owner, Knox, N. Dak.**

FOR SALE

Seven and one-half lots in the City of Dorchester, Nebr.; one 8-room house; breeding stable; corrals and paddock; 4 box stalls for stallions and jacks, two opening into paddock; one large enough for breeding purposes; room for 4 other horses. Office and granary; well; cistern; windmill and other outbuildings. One Percheron stallion; 8 years old; Cost $1,200 at 2 years old; also one jack. Plenty of colts to show and satisfied customers to talk with. Both easily handled. Only two more stallions in town, and I had plenty of business when there were six others. Want to quit business on account of health. All for $3,500, if taken soon. Best location in town for the business.

R. H. PIGG, Dorchester, Nebr.

IRVINEDALE ANNUAL SALE



40 Belgian, Percheron and French Draft Stallions and Mares

ANKENY, IOWA

THURSDAY, FEB. 19



Some Features Which Make This Sale Important

1. A consignment of especially selected imported animals fresh from the old country that will sell in shipping condition—a point in the buyer's favor.
2. One of the largest offerings of high class Belgian mares ever made in an American auction.
3. The champion draft team (tried brood mares) at the Iowa State Fair.
4. The dam of Blue Belle, undefeated as a two-year-old in classes for mare bred by exhibitor, and champion at Minnesota State Fair and the Sioux City "Interstate."
5. Louise, dam of the yearling stallion, Irvinedale Prince, that won from first to fourth at the State Fairs where shown last fall.
6. When an animal is brought in the ring every known defect will be pointed out and it will sell on its merits without by-bid or reserve.
7. A written guarantee that it is a breeder, goes with every stallion over 2 years old.
8. A certificate of registration and transfer of ownership goes with every animal sold.

Send for catalog (mentioning American Breeder). I want you here.

CHAS. IRVINE, Prop. **ANKENY, IOWA**

AUCTIONEERS—Carey M. Jones, Charles Howard and R. M. Howard.

Breeding School

GRADUATE WANTED.

I want to hear from a graduate of the Graham Horse Breeding School who would come to Montana and work through breeding season. Must thoroughly understand capsule system.

Bunch of good range horses for sale.

JUDSON W. HISCOCK,
Ekalaka, Montana.

Position Wanted.

By graduate of the Graham Scientific Breeding School. I am 30 years of age; have had plenty of experience in breeding and handling stallions and jacks. Can furnish best of references. Wages reasonable.

ALBERT RUDLOFF, Lynch, Nebr.

Want to Lease

Good Belgian, Percheron or Shire stallion on the halves. Address
BOX 65, TINGLEY, IOWA.

I WILL TRADE

a nice, smooth, half section, improved, for Percheron and Shire stallions. For particulars address owner,
JOHN HEID, Flagler, Colo.

LAND TO TRADE

For Registered Percheron Stallion, or good, young jack, 10 months old. I want to trade my equity in 20 acres irrigated land.

N. A. SCHWALD, Maxwell, N. M.

veterinarian of experience personally examine this case and begin at once its eradication, for if neglected it will very likely extend to the deeper parts where it cannot be reached. This affection resembles very much cutaneous glanders and might be easily mistaken for the latter disease by one of limited experience.

693—"NIGGER HEELS."—We have two saddle fillies, one coming two years old in spring, other one in fall. Both are "nigger heeled" in front. Can you give us a remedy?—Missouri Subscriber.

REPLY—This defect is one of faulty conformation, a condition born in the animal, hence cannot be corrected only so far as shoeing to prevent interfering while in action.

694—BLOOD TONIC—Please give a receipt for blood tonic for jacks that can be given with a syringe same as any fluid. It is hard to get jacks to eat anything foreign in the feed.—Kansas Subscriber.

REPLY—You can have your druggist procure you some tablets from which you can make up a solution of the arsenite of potash which your jacks will take when given in the feed.

695—CONTRACTED TENDON—I have a black colt seven months old sired by a trotting stallion. When about four months old I noticed that he did not step just right on his right front foot. I looked at it and saw that the back part of the foot was just as high as the front part. I pared the back part off; by doing that I thought the back of his foot would come down but it did not, instead it seemed to go more forward. Four weeks ago I pared it again; the hoof and frog were grown down again as before. The foot seems a little stiff. The mare is a cripple so I put them in the barn every night and feed them oats and hay now. They run in stock field by day and in the barn at night. The colt gets one gallon of oats night and morning and some fodder.—Iowa Subscriber.

REPLY—It would appear that the back tendons of the limb have contracted to a point of raising the heel from the ground so that not contacting the latter it grows long. You should have a competent veterinarian examine this colt with a view of locating the exact trouble. In the meantime keep the heel trimmed to normal proportions and permit the colt to take moderate exercise.

696—STRANGLES—What is pinkeye, influenza, distemper, bastard strangles, epizootic? I have about 50 horses and some of them got sick. They breathe hard, swell up under the throat and jaws, and the swelling breaks open if not lanced. They do not get it all the same way. I have had two doctors, one says it is influenza and the other doctor says it is bastard strangles. He has vaccinated them twice and will in five days vaccinate them again. It seems to be catching, as about ten of them have it now. They also get a high fever with the sickness. One horse, a two-year-old, had a swelling on both shoulders and around under the chest. The shoulders the doctor lanced but that under the chest must have broken open on the inside. Then the doctor tapped him back of the fore leg, on the right side, but the colt died. Please let me know through your paper what you think about this.—Washington Subscriber.

REPLY—Your horses are without doubt affected with what is called strangles and from your description we would judge that it has in some of the cases assumed the irregular or bastard form. Strangles is sometimes erroneously called distemper. The terms "pink eye' 'and "influenza" are the same expressions for another disease which differs from strangles. Epitzootic has no application to any particular disease but is used in reference to any wide spread malady among animals. For instance, when hog cholera is generally prevelent and spread over a wide territory, it is spoken of as an epizootic disease.

697—STIFF MARE—I have a fine draft mare five years old last fall. She raised two fine mare mules, will foal again next April. About six or eight weeks before the foal she gets very stiff while running in pasture all the time. She does some light work. I feed shelled and mowed oats, prairie hay, very little corn, no fodder, plenty of salt and running water. Have you anything to suggest as a remedy in her case?—Missouri Subscriber.

REPLY—Stiffness of this character being dependent upon the presence of the foetus does not respond to medicine. Continue to permit this mare to take such exercise as she desires. Do not feed too heavily on grain.

698—SWOLLEN KNEE—I have a fine

A FEW STRICTLY GOOD BELGIAN AND PERCHERON Stallions and Mares for Sale.

Last fall, showing three stallions and one mare and colt, at two state fairs and the "Royal," I won 25 firsts and championship ribbons, 3 seconds, 2 gold medals and 3 silver medals.

Some of these winners, and more of the same sort, are for sale. I'll use what are not sold, for they are all high class and right in every way. Come and see for yourself.

LEW JONES, - Alma, Kans.

Imported Belgians and Percherons

Nine stallions of breeding age, five home bred stallion colts; 30 imported mares coming one and two years old.

All as good as money could buy in France and Belgium. Will be sold at very small profits.

BROWN & AYRES, Hillsboro, Ohio.

HIGHLAND VIEW STOCK FARM DISPERSION SALE

will be held at Kittanning, Pa., Wednesday, March 4th, 1914, at 10 a. m., rain or shine. 40 head of the best imported and American bred registered Percheron and Belgian stallions and mares will be offered in this sale. Write to

O. N. WILSON, Prop., Kittanning, Pa.

Imported Belgian Stallion

At Public Auction.

Nine years; sound and right; a good breeder; has no bad habits; is easy to handle. Also 7 head of horses including 3 Belgian mares bred to this stallion; 10 Holstein heifers. Sold at public auction, Wednesday, February 25, 1914.

E. D. CHENEY, Prop., Hillsdale, Mich.

BELGIAN, SHIRE AND PERCHERON STALLIONS

and mares, also Standard bred stallions and mares, $200 and up. **E. P. Hamilton & Sons, Garden Grove, Ia.** (Mention this paper). 23 miles S. W. of Chariton, Ia., 82 miles south of Des Moines, Ia., at Leroy.

IMPORTED BELGIAN STALLION

Six years old; dark bay-roan; weighs a ton. Good individual; right in every respect. Selling him cheap.

FIRST BANK OF THAYER, Thayer, Ia.

BLUE VALLEY STOCK FARM



Largest Importers and Breeders of High Class Belgian Draft Horses in the West. Importation of Belgian stallions and mares arrived September 7th. Many of our horses were medal-winners at the foreign shows this year; all are sound, acclimated and ready for service. Lowest prices and safest guarantee of any firm in the business.

Also a few extra good Percherons. Write us, always mentioning the American Breeder.

W. H. BAYLESS & CO. **Blue Mound, Linn County, Kans.**

IMPORTED DRAFT STALLIONS FOR SALE.

Four extra good Belgians; ages 6 to 7; average weight 2,300. One good French draft; 4 years old; weight 2,000. This is an extra good one. These have been used in our stud since imported, and we have many fine colts their gets, to show, as well as a large number of mares in foal, proving them splendid sires.

We are making a change in our business operations, and will offer these stallions, quality considered, at remarkable prices. If interested write or come and see them. Our barns are but a mile from the station, where we will meet you.

We make a specialty of buying stallions or pure bred mares on orders. If your community is in need of a good draft stallion we want to hear from you. All records are complete on each horse.

R. J. CRAWFORD & SON, MILES, IOWA. **PHONE 163, MILES.**

We Write Life Insurance on Horses.

REGISTERED BELGIAN STALLIONS. From one to three years old; from imported sires and dams. Good ones. Also one 6-year-old imported Belgian Stallion, weight 2,000 lbs. A prize winner; sound and good foal getter. Lots of colts to show. Will price them right. No trade.

E. A. SILVERTHORN,

Rossville, Ind. **Route 1.**

CLOSING OUT SALE.

Two imported Belgian stallions, 6 years old; bay; 2000 and 2100 pounds; one imported Percheron stallion, 11 years old; black. One home bred Percheron stallion 2 years old; black-grey. Also some registered fillies. These horses are all sound and priced to sell.

HATTEBERG BROS., R. 4, Paxton, Ill.

IMPORTED AND AMERICAN BRED BELGIAN MARES AND STALLIONS.

I purchased these stallions and mares in Belgium and imported them myself. I have kept them and acclimated them on my farm. No extra expense upon them. I can sell them cheaper than you can buy them anywhere in America. Come and see for yourself.

WILL H. ADE, **KENTLAND, IND.**

FOR SALE

At a Bargain

One imported Belgian; one imported German Coach; two American bred Percherons. All good, sound, heavy horses.

ALF S. FROILAND, Astoria, So. Dak.

--BELGIANS--

A carload of imported and home bred Belgian stallions and mares; all ages. Matured horses weigh from 1800 to 2200; with plenty of bone and quality, at prices to sell.

ED BOLL, JR., Scribner, Neb., Rte. 5.

BELGIAN STALLION

for sale. Chestnut sorrel; 6 years old; weight 1800 pounds; a pleasure to handle him; has never been overworked as I have used the capsule system. Last year's work showed 85 per cent in foal. Well broke to drive and ride; have had him four years and must dispose of him on account of his fillies. This horse shows a sound state inspection certificate. For further particulars, write to

E. F. BICKMANN, **Pender, Nebr.**

Mammoth jack and I notice his knee-caps seem to swell or puff. Is it caused by his getting up and down sometimes? He seems to wear the hair off on his knee and makes little sore places. Is that common in a jack? —Colorado Subscriber.

REPLY—It is quite likely the swelling is caused from bruising, either from getting up when down or bumping it on some object in the stall. Keep the stall well bedded and observe if there are any objects that he can strike while pawing. Bathe the knee with a solution of alcohol and witch hazel equal parts to which two drams of tannic acid has been added to each pint of the preparation. Apply twice a day, rubing in well.

699—LOUSY JACK—I have a young jack that gets lousy. What will keep them off?—Texas Subscriber.

REPLY—Nothing will keep them off unless you thoroughly clean up his quarters and get rid of the seed. Clean out and destroy all litter with fire. Soak all the wood work and floor of the stall with a one per cent creolin solution, and then apply a thin coat of white wash to the wood work. Bathe the jack thoroughly on a warm day with a one half of one per cent solution of creolin and repeat in ten days.

700—JACK RUBS HIMSELF—Please tell me what to do for my young jack. He is 19 months old and is in good flesh; has a good appetite and feels good. Is all the time rubbing against something—rubs until the hide is off. Has no lice and no eruptions on the skin. Has oats twice a day and all the alfalfa he will eat.—Colorado Subscriber.

REPLY—Bathe the parts affected with alcohol one part and a saturated solution of boracic acid two parts to which add a teaspoonful of carbolic acid to every 16 ounces of the mixture Do not feed too heavily on grain. Look very carefully for small parasites like chicken mites.

701—INDIGESTION WITH COMPLICATIONS—A friend of mine recently had a mare (in foal) who ate too much wheat. A few hours later she seemed somewhat sick and was also stiff. He immediately gave her a dose of linseed oil (a pint), followed by another in a few hours. At night, or 24 hours after getting the wheat) and also after she had passed a considerable amount of wheat in her dung), she became worse, whereupon he called in a veterinarian who remained with the mare until morning and then walked her five miles to town. Three days after getting the wheat the mare died. Is this what might naturally be expected in such case? I have always heard that if fatal, death would come much sooner.—Oklahoma Subscriber.

REPLY—There is no food that will produce a more severe case of indigestion than wheat, particularly when horses get loose and eat their fill. In this case no doubt there was the additional complication of laminitis and such is liable to lead to a fatal issue.

702—TRAINING A YOUNG JACK—I have a weanling jack, and about a week ago put in a spring filley colt with him for company. They have access to a small corral. They try their heels on each other occasionally and the jack seems to fell he is outclassed. I don't feel afraid he will be injured, but might it be harder to make a server out of him and would it be better to raise him by himself. —Kansas Subscriber.

REPLY—The disposition of the jack has much to do with the company he should have. One that is very rough might be accompanied with a filly like the one you describe and she would decide when it was best to stop the performance. Some jack colts will go to the extreme in such exercise. It is better however, in these extreme cases to separate them with a partition in cases of this kind. An ordinary jack colt should be put with a filly of a timid disposition for the best results usually. The object is to create a desire for mares by this companionship. If the filly is too severe the jack will not develop into a prompt server in every case. By all means keep all jennets, mules and jacks away from this young fellow so that he will forget that he ever belonged to the long eared tribe. This is the time to develop the quick serving instinct so much desired. This may seem very troublesome but it is much more profitable than to have a disgustingly slow jack. If every breeder would remember this there would be very little excuse for slow jacks. The desire for jennets and mare mules is very easily established with a young jack even up to

BELGIAN EMPORIUM OF AMERICA



Largest collection of Belgian draft horses on earth. Also 20 choice Percheron stallions. The fall importation of 100 head, the second importation for 1913 swells the number on hand to 175 stallions, mares and colts. Many prize winners; many descendants of prize winners. All choice animals. We are farmers and stock breeders; twenty-eighth year in the Belgian horse business. Each year adds to our strength, and now we can defy competition in quality, quantity and prices.

Four farms, all adjoining; 7 large barns.

Write for free illustrated catalogue.

H. LEFEBURE & SONS, Fairfax, Linn Co., Ia.

(Eight Miles from Cedar Rapids.)



WE ARE IMPORTERS

of the best blood of Europe in

BELGIAN AND PERCHERON STALLIONS AND MARES

Importation made regularly and a large selection kept on hand in season. Only horses of **high quality** handled. Prices and terms **right.** It will pay you to see our horses before buying. Favorable terms to responsible dealers. Our 1914 calendar is now ready for distribution. Write for full particulars.

W. A. LANG & CO.,

Greeley, Delaware County, Iowa

Belgians Below Competition



Among them are state fair champions and first prize winners. Will guarantee to sell a better horse for the money than any one in the business. No better or safer guarantee put up by any firm. Reference, any bank in Harpen county. Write

DAVID COOPER & SONS,

Harper Co. **Freeport, Kans.**

Auction Sale of Clydesdales and Percherons

Fair Acres Stock Farm, February 9, 1914.

Six Clydesdale stallions; 14 Clydesdale mares and fillies; two Percheron mares; 1 registered black jack coming two years old. Mares are all bred and showing heavy in foal. Write for catalogue.

JOHN H. CHAMBERS, Edindurg, Ind.

STALLION BUSINESS AND BARN

For sale, cheap, at Dawson, Nebr; also one imported Shire stallion. Would sell the stallion without the barn. Good opening to locate. Address

LEE ROY JUDD, **Dawson, Nebr.**

CLYDESDALE STALLIONS

For Sale. One 7 years old: two coming three years old. Will exchange one for one of the same breed, his equal. All three are big, heavy boned and sound horses. **J. G. THOMPSON & Sons, Steubenville, O. R. 1, Box 109.**

SIZER'S SHIRES

Stallions and Mares for Sale.
All ages—the Get of
TATTON CHIEF 8605 (20087)
The sire of more prize winners than any other Shire horse in America.

L. N. and O. B. Sizer, Fisher, Champaign County, Ill.

RECORDED SHIRE STALLION FOR SALE.
Seven years old; weighing over a ton; very gentle, proven an 80 per cent foal getter. Must sell on account of his colts. Price, $750 if taken soon. Also a stud colt; fillies of all ages and mares in foal. Must sell for cash or bankable note. Will not consider a trade at all.
B. M. BOYER & SONS, FARMINGTON, IOWA.

Clydesdale Stallions

For Sale.



Prize winners and the produce of prize winners. They are mostly of the large, drafty type; ages one to four years old. Prices and terms most reasonable. Call on or write

W. V. HIXSON, Marengo, Iowa.

CLYDESDALE STALLION

For sale. Six years old; weight 1850 pounds. Good breeder. Fillies in the way.

Five black jacks for sale; the big kind; from 15½ to 16 hands; black with white points; from one year old to six.

Also 5 spring bull calves (Herefords). All in good condition.

J. R. BROOKS, Cairo, Mo.

STALLIONS FOR SALE.
One native bred bay Shire, 7 years old, weight 1900. One imported bay Shire, 6 years old, weight 1700. One standard bred brown Hambletonian, 13 years old, weight 1200. All sound and sure. Can show colts and furnish certificates. Have had them four years and must sell as their colts are in the way. Prices reasonable. For further particulars, write
PETER PURSEL, Local Stallion Man, McCool Junction, Nebr.

THREE STALLIONS
For sale or exchange, on account of their fillies only. One Shire, wide and low; imported German Coach and a saddle stallion; all 12 years old; registered; sound and show horses; good breeders; colts to show. Have been in our barn seven seasons, saddle horse, tour, must be changed. We are pricing them very low, or will exchange the draft for Shire, Percheron or Belgian, if good enough. Don't wait. We mean business.
J. A. EVERMEYER & SON, Troy, Lincoln Co., Mo.

7 SHIRE AND PERCHERON STALLIONS.
Sire and dam of Shires, imported by Trumans' Pioneer Stud Farm; dam bred by Thomas Gee of the famous Wrydelands Stud Farm of Thorney, England. Prices $250 to $650. Will meet train at Wakefield if notified in time.
James Auld, Wakefield, Clay Co., Kans. Route 1.

4 Shire Stallions

For sale—One 3-year-old; one yearling and two last spring colts. These are from imported stock, some of them International prize winners, of which Holker Colin 8528 (21525) was also first at the Royal in 1906. Come and see them or write me.
CHAS. CAPPEL, Logansport, Ind.

CLYDESDALE HORSES

Stallions and mares of all ages for sale.
Also Shorthorn Cattle.
W. A. DeMerritt
Route 2, Plainfield, Ill.

Suffolk Punch Horses

We have imported stallions and mares and also home bred stallions from weanlings to two year olds. All for sale at very low prices, as we are overstocked. Correspondence solicited.
G. A. Hamilton & Son, Loveland, Colo.

CLYDESDALES

For sale. Registered stallions and mares. Also bred Duroc gilts.
J. H. COPELAND, Fairfield, Ia. Rte 1.

SHIRE STALLIONS
For sale; weanlings to 8 years old; 1,000 to 1,900 pounds. Best of breeding, quality and substance. Price $250 to $800.
J. E. McWHERTER, Plymouth, Ill.

the age of four or five years. If they are never allowed to know that such females exist they are more easily handled and not so easily spoiled. With the great demand for young jacks it should be considered a detriment to the live stock industry for a breeder to allow a good specimen to be carelessly spoiled.

703—CONTAGIOUS ABORTION—I have six mares that I have raised or bought while they were young and they have all been faithful breeders. For the season of 1913 I got four of them in foal, bred during May, one service each, natural service. About December 10 one aborted and I kept her separated from the others and washed her hind parts with a strong solution of creoline and water and burned all refuse. On December 26, the second one aborted; I cleaned her up the same way. On January 4, the third aborted; I also cleaned her up the same way. Now there was none of these mares sick and you could see nothing wrong with them one hour before everything came clean with very little labor and would get up and go to eating in just a few minutes after. They acted a little stiff and sore to move in the hind parts for a day or two. Now it is customary here to turn the stock loose in the stubble field after the fall work is done and mine were also out about three weeks when the first mare aborted. As soon as this happened I kept them in a twenty acre pasture and hauled oat straw, with quite a lot of oats in it, and let them eat at their own will. Our fields are all wheat and oats stubble with lots of wasted grain, no grass land at all. What, in your opinion, caused this And what should be done before breeding again? How long a time should elapse before breeding again? I started giving Fluid Extract of Black Haw as soon as I could get it, which was at the time the second one aborted. Do you think this will do the remaining one any good or do I stand a good chance of her aborting also?—Canada Subscriber.

REPLY—Keep the one mare entirely away from those that have aborted and continue the use of the black haw. Don't think of rebreeding those that have aborted this season unless treated by a competent veterinarian, for the reason that you will very likely have a repetition of the experience. (See another article this issue on the same subject.—Editor.)

FAVORS STANDARD BRED OR MORGAN CROSS.

To the American Breeder:—I think if the Montana subscriber would get him a heavy boned registered Morgan or Standard bred stallion either one would be better for him with his small mares, but when he gets a horse of that kind he wants to see that there is plenty of horse there and not buy his paper. He ought to have a horse 16 or 16½ hands high and one that weighs about 1300 pounds with plenty of bone.

Some of their colts ought to go for cavalry horses and the rest will make good saddle horses he can sell at home. Where, on the other hand, if he uses a Percheron and intends to raise his horses on the range as I suppose he does, he will have some horses that will weigh 1050 to 1200 pounds, with the big end of their legs down and a big head and tail. I have seen quite a bit of that kind of breeding right here in southeastern Montana. The big horses' colts will look fine until they are about a year old and then they go to pieces.

If he wants big horses he had better trade his whole bunch for a few big mares to start on and go at the business right.—W. B. Gilleland, Fallon county, Montana.

TWO STALLIONS—ONE JACK
For sale. One imported German Coach; dark bay; weighs 1500; coming 9 years old; an extra breeder. One black three-quarter Percheron, one-quarter German Coach; weighs 1400; coming 4 years old; will make 1600 pound horse. One registered black jack, white points; 15 hands high; extra heavy bone and good breeder. Price $1,000 for three. Am going out of the business.
H. H. SANDERS, Spring Valley, Ark.
(15 Miles East of Springdale.)

THE
ASTRAL KING
STOCK FARM
Jefferson City, Mo.

Big Annual Public Sale
March 11th, 12th and 13th

Saddle Horses, Driving Horses and Breeding Stock. For Information Write

JAMES HOUCHIN, - - Jefferson City, Mo.

A BULLETIN ON SADDLE HORSES.

Because of its special interest to horse men, a bulletin just put out by the Missouri State Board of Agriculture calls for more than passing notice. Its title is the "Missouri Saddle Horse," but as Secretary Wilson fitly says, it is more than a bulletin—it is a real history. The bulletin is largely the work of Professor E. A. Trowbridge of the Missouri College of Agriculture, whose article on "Recent Saddle Horse History in Missouri" makes the leading chapter. Saddle horse men in Missouri, and in every other state, will find this one of the most interesting little books ever put out in the interest of their favorites, and so far as we know it is the best thing in print on Missouri Saddle Horses.

A McGREGOR STALLION.
For sale, or to trade for young Percheron or Belgian: Leslie McGregor, 47681, Standard bred, 8 years, sound, good breeder.
Also for sale, cheap, a cross-bred Shire-Clydesdale, 1800 pounds, good breeder and must sell. Also 5 good, young jacks, up to 16½ hands and worth the change.
S. J. MOLBY,
Agricola, Coffey County, - Kansas

STALLIONS IN SERVICE
Stallion and Jack for Sale.
Council Chimes P. 2:07½, a demonstrated speed sire; sire of Minnie Chimes 2:04½ and many others in standard time. Terms $10 when mare is bred and a note for $40 due when a living colt is foaled. Write for pedigree and information.
I have a good French draft stallion and a big grey jack for sale.
DR. D. H. BIBENS, Larned, Kansas.

HAMBLETONIAN STALLION
for sale or trade. He is a bay; 16 hands; good bone; 9 years old; good disposition; works anywhere. Must get rid of him on account of his fillies. He weighs about 1400 when fat. Plenty of colts to show. This horse's sire is a pedigreed Hambletonian and his dam is a grade mare. Would trade for a heavy horse, 5 or 6 years old and weighing from 1800 to 2000 lbs.
WILLIAM E. RHODES,
O'Fallon, St. Charles Co., Mo. Rte. 1.

FOR SALE AT A BARGAIN.
A pacing colt; 3 years old last July; sired by Symboleer, 2:08¼; his dam is Trilby, record of 2:18. This colt weighs 1050 pounds and is a smooth traveler. Has not been trained, but is broke single and double.
J. H. MOORMANN, Solomon, Kans.

SHETLAND STALLIONS.
To lease, for season of 1914. Spotted and solid colors. Mares, colts and geldings for sale.
GEO. H. SIMPSON, Wheaton, Ill.
25 miles west of Chicago.

SADDLE STALLIONS
For sale. Jim Patterson 4000; 4 years old; Sam Mede 5376, 2 years. Both are sired by Chester Mede 1676; he by Chester Dare 10; dam, Sallie F. 2865; she by Quarry Denmark 1337; he by Kentucky Denmark 300. They have been taken good care of and are well developed. We are going out of business and will price these horses worth the money.
CRAIG BROS., Pittsville, Mo.

HIGH CLASS SADDLE STALLIONS
at bargain prices. Sired by Black Knight 2366, by Monarch 1266, by Highland Denmark 730, by Black Squirrel 58. First dam by Artist Montrose 51; second dam, Vannie 1519.
Also big black Mammoth jacks and jennets. Selling on account of failing health.
J. E. BRADLEY, Carthage, Mo.

HIGHBALL 2ND, 2574
for sale or trade. A. M. S. H. B. A. of Louisville, Ky.; black; small star, 16¼ hands; sire Greatland 1403; grandsire Highland Denmark 730; dam Vasie 1896; foaled March 6, 1904. Will sell worth the money or trade for a good jennet or two or a young jack if a good one.
M. A. RICHBURG, Wlansboro, Texas.

FOR SALE.
One registered Kentucky saddle stallion; 8 years old. One imported German Coach; 12 years old. Four big boned young jacks; 2 to 8 years old; 14 to 16 hands high.
CHAS. H. CLANCY, Barytles, Mo.
R. R. station and long distance telephone, Blackwell, 51 miles south of St. Louis on I. M. R. R.

SADDLERS FOR SALE.
Registered stallions and mares; all ages. Also a few Hereford bulls.
H. A. GREENWELL,. Lakenan, Mo.

REGISTERED MORGANS.
My Morgans are large; 15 to 16 hands and 1050 to 1300 pounds; have clean, heavy bone and possess all of the style and endurance for which the breed is noted.
Having bought Headlight Morgan to head a selected stud of The Admiral mares, The Admiral is now for sale. He is 15¾ hands high; weight 1250 pounds, and is the greatest all-round horse I know. I have 200 of his get on the place; part of them for sale.
RICHARD SELLMAN, Rochelle, Texas.

FOR SALE.
A Black Hawk Morgan stallion and a Morgan mare coming three years old, sired by the best bred Black Hawk Morgan stallion living, Sherman Morgan 01469 A. T. R. 5518 A. T. R.; a stallion of great power and vim; sires speed and the highest type of a roadster and harness horse. Characteristic of the Black Hawk Morgan family.
E. E. Seltner, Roann, Wabash Co., Ind.

REGISTERED MORGANS, SHETLANDS AND PERCHERONS FOR SALE.
Morgans coal black; Blackhawk blood; mature 15½ hands; 1,200 pounds. Shetlands, part imported; some sired by David Harum. Morgan and Shetland stallions, mares and fillies from weanlings to mature ones. Priced from $60 up. Imported Percheron stallion; gray; 2,100 pounds; good individual and breeder. Price, $400. Please describe what you want in first letter.
E. F. BROWN, Derby, Iowa.

EXCELSIOR SHETLAND PONY FARM.
Registered and High Grade Ponies for sale. W. H. Fulcomer, Belleville, Republic County, Kansas.

Advertising Briefs

PUBLIC SALE DATES.

Percherons.

Feb. 9—John H. Chambers, Edinburg, Ind.
Feb. 12—John H. Decker, Piper City, Ill.
Feb. 18—W. S. Boles & Sons, Enid, Okla.
Feb. 19—Chas. Irvine, Ankeny, Ia.
Feb. 25—J. C. Robison, Towanda, Kas.
March 9—North Mo. Live Stock Association, W. A. McVay, Mgr., Trenton, Mo.
Mar. 19-20—North & Robinson, Grand Island, Neb.

Belgians.

Feb. 18—Gust Weidke, Elmore, Minn.
Feb. 19—Chas. Irvine, Ankeny, Ia.
Mar. 19-20—North & Robinson, Grand Island, Neb.

Shires.

Mar. 19-20—North & Robinson, Grand Island, Neb.

Clydesdales.

Feb. 9—John H. Chambers, Edinburg, Ind.

Saddle Horses.

March 10—Hamilton Bros., Mexico, Mo.
March 11, 12, 13—James Houchin, Jefferson City, Mo.

Jacks and Jennets.

Feb. 10—W. F. Schade, Jackson, Mo.
Feb. 21—Marshall County Jack & Jennet Breeders' Association, Lewisburg, Tenn.
Feb. 24—H. T. Hineman & Sons, Dighton, Kas., and D. J. Hutchins, Sterling, Kas. Sale at Sterling.
Feb. 28—C. McNulty, Morrowville, Kas. Sale at Concordia, Kas.
Mar. 9—G. C. Roan, LaPlata, Mo.
March 9—North Mo. Live Stock Association, W. A. McVay, Trenton, Mo.
March 10—Hamilton Bros., Mexico, Mo.

Mules and Other Stock.

Feb. 25—J. W. Marks, Lake Park, Ia.

Polled Durham Cattle.

Feb. 13—Peter Anderson, Piper City, Ill.

Chester White Hogs.

Feb. 10—B. M. Boyer & Sons, Farmington, Ia.

Alf. S. Froiland, Astoria, So. Dak., has an imported Belgian, an imported German Coach and two American bred Percherons for sale at a bargain.

H. M. Rider and F. V. Thom, Rushmore, Minn., have a gray and a black imported Percheron stallion and a two year old grade stallion advertised in this issue.

E. P. Hamilton & Sons of Garden Grove, Iowa, write that they have some good, sound registered stock with size and quality, at reasonable prices. Prices range from $200 up.

Amos Hanson of Collins, Iowa, has some stud colts that he will sell cheap. They are all registered in the Percheron Society of America.

C. L. Seagraves, Santa Fe Railway colonization agent, can furnish full information as to lands, crops, climate and opportunities along the lines of this great system in the Southwest. Address him at 2511 Railway Exchange, Chicago, and mention the American Breeder.

Frank Davidson, Percheron breeder of Ruskin, Nebraska, advertises registered mares and stud colts for sale.

J. W. Marks, Lake Park, Iowa, holds a public sale of jacks, mules, mares, cattle and hogs, February 25.

E. D. Seamans, Salem, Iowa, has young Percheron stallions for sale, two, three and four years old. Also mares in foal.

G. M. Scott, Rea, Mo., specializes in jacks good enough for herd leaders. Here is a brilliant business that has been established 48 years.

C. H. Wempe, Seneca, Kansas, offers for immediate acceptance, bargains in some Percheron stallions. One Clydesdale stallion and some registered Clydesdale mares heavy in foal.

J. C. Robison, Towanda, Kansas, holds his annual public sale of Percheron stallions and mares February 25. Fifty head of stallions and mares will be sold. The Robison plant is one of the oldest, biggest and best in the West, and a day at the farm where the sale will be held, will be a day full of information and inspiration for any breeder. Send for catalog, mentioning the American Breeder.

The next American Breeder Stallion Show will be for Belgians. Announcements and entry blank appear elsewhere in this paper. Every photograph and entry coupon must reach this office not later than February 28. Contest open to all subscribers who own Belgian stallions. Please tell your neighbors about this.

The Kansas City Veterinary College is considered, by many who are in a position to know, as the most thorough and best equipped institution of its kind in the United States. The course of study is always kept abreast of the times and the instructors are all leading investigators along their special lines. For catalogue and information, address Dr. S. Stewart, Secretary, 1336A East 15th St.

G. C. Roan's great sale of jacks will be held on his Clover Leaf Stock Farm, La Plata, Mo., March 9. For the second time Mr. Roan has bought the sale stock of the famous Limestone Valley herd and thus secured this year the right to the Monsees' sale date of March 9. This gives Mr. Roan's customers the product of two of the great jack and jennet herds of Missouri. See advertisement in this issue and get catalogue at once.

Peter Young, Assumption, Illinois, manufactures a stallion bridle that has stood the test of many years. Not only is it practical, but it is probably the most handsome and neatly made bridle on the market. See ad in this issue.

Wolf Brothers, Aiblon, Nebraska, for leading winners in Belgians and Percheron stallions at the recent Denver Live Stock Show. This is the second big Western show at which Wolf Brothers have exhibited the past season, and their success is shown by the list of prizes given in their advertisement in this issue.

J. J. Murray, Lewisburg, Tennessee, is secretary of the Marshall County Jack and Jennet Breeders' Association, and should be written at once for catalogue for this famous association's big jack and jennet sale to be held February 21.

James Houchin, Jefferson City, Mo., announces March 11, 12 and 13 as the dates of his annual stock sale of saddle and driving horses and breeding stock. See announcement this issue, and mention American Breeder when sending for catalog.

Ed Early of Polo, Mo., will hold a public sale on February 14, consisting of pure bred Percheron stallion, 5 jacks, mules, mares, etc. Sale will be held at Mr. Early's barn in Polo.

M. F. Hrabe of Knox, No. Dak., is offering two stallions for sale, one Percheron and one Standard bred, on account of their fillies. These stallions have been examined twice and are reported free from all transmissible diseases.

W. P. Black, Steubenville, Ohio, has a steel grey Percheron stallion advertised for sale in this issue. Write him for particulars.

The First Bank of Thayer, Thayer, Iowa, is advertising an imported Belgian stallion for sale cheap. Anyone interested should not fail to write them regarding this stallion.

E. F. Brown, Derby, Iowa, has registered Morgans, Shetlands and one Percheron stallion advertised for sale in this issue. He prices the stallion at $400. Look up the ad.

Hamann, Sachs & Jagoro, Danvers, Minn., have an imported black Percheron stallion offered for sale in this issue, or trade for a registered mare or fillies. Read their ad, it gives a good description of this horse.

Orville E. Phillips of Station A, Dallas, Texas, has a prize jack for sale, also a Denmark saddle stallion.

H. R. Baird of Pawnee Rock, Kans., has a first prize Percheron stallion offered for sale. He is compelled to sell on account of his fillies.

John A. Edwards of Englewood, Kans., is offering six jacks and 17 jennets to close out and will make the prices right.

Judson W. Hiscock, Ekalaka, Mont., wants a graduate of the Graham Scientific Breeding School to handle his stock through the breeding season. Any one in the market for a position of this kind should not fail to write Mr. Hiscock. He also has some range horses advertised in this issue.

E. D. Cheney, Hillsdale, Mich., will sell a nine-year-old Belgian stallion at auction February 25. Belgian mares and other horses are included in this sale.

R. H. Pigg of Dorchester, Neb., who is quitting the business on account of his health, advertises a dwelling and a well equipped breeding plant, including a Percheron stallion and one jack, for sale at a bargain price.

A stallion to lease on shares, Belgian, Percheron or Shire is wanted by Box 65, Tingley, Iowa.

The First Bank of Thayer, Thayer, Iowa, advertises a Percheron stallion for sale. The stallion is located at Huntley, Montana.

C. P. O'Donnell, Winchester, Ill., advertises pure bred Percheron mares in foal to prize winning stallion.

Jos. Clark, Canton, Ill., advertises two imported Percheron stallions, a grey and a blue-roan.

D. B. Jenkins of Jewell, Kans., guarantees the ten year old Percheron stallion he is advertising.

D. M. Averitt, Bedford, Ky., holds a public sale of breeding stock February 12. One stallion, three jacks and a lot of jennets and mares will be sold.

Dr. R. P. Poage of Sheibina, Mo., advertises in this issue two good young jacks for sale at $400 each.

Morelock Bros. of Green Castle, Mo., want to trade a jack and stallion for Shorthorn cattle.

H. A. Schwatken of Hammond, Kans., advertises ten jacks and twelve jennets.

E. E. Seitner, Roann, Ind., adver-

THE GREATEST SALE

BOTH IN QUANTITY AND QUALITY, OF



Jacks AND Jennets

To be held in the United States during the year 1914, will take place at my

Clover Leaf Valley Jack Farm, March 9

La Plata, Macon Co., Mo.

In the largest Sale Pavilion for this kind of stock in the world.

Having purchased the entire sales herd of L. M. Monsees & Sons of the Limestone Valley Jack Farm, and the right to their sales dates for the year 1914, I will sell the combined products of these two great farms.

I have in this sale more Jacks that are fit to head any herd of Jennets than was ever in one sale in America. ***Write at once for the greatest Jack and Jennet Catalogue ever published, giving the photograph of each Jack taken from life on the 2nd day of January, 1914, with his breeding.***

G. C. ROAN, La Plata, Macon Co., Mo.

Big Stock Sale

ON FEBRUARY 12, 1914.

1 dark chestnut Morgan and Drennon stallion; 16 hands; 1,200 pounds; 6 years old. Well broke to serve, saddle and drive; fine breeder.

1 registered black Spanish jack; 15 hands; fine breeder; sure and quick; foaled in 1902.

1 black Spanish and Kentucky Mammoth jack; eligible to register; broke to serve; foaled 1911.

1 black Kentucky Mammoth jack; foaled 1913; a very fine colt.

5 black Spanish and Kentucky Mammoth jennets; 15 hands; 1, 4, 6 and 12 years old. Jacks and jennets all black with white points.

A number of young mares in foal; young mules and heifers ready to calve.

Sale on Ohio River, at Wises' Landing, Kentucky; 30 miles above Louisville, Ky. Boats leaving at 2 p. m. daily. 120 miles below Cincinnati, Ohio. Boats leaving at 5 p. m. daily; 20 miles below Madison, Ind., boats leaving at 2:30 p. m. and 6 a. m. daily. Sale will begin at 10 a. m., rain or shine.

D. M. AVERITT, Bedford, Ky.
Rte No. 1; Cumb Phone 12-2.

TWO GOOD YOUNG JACKS.

Both sired by Big John. They are 3 and 5 years old; 14 hands; strong; standard; heavy bodied; big boned; big eared and good individuals. Colts to show from older jack. Both guaranteed right in every way. Am pricing them down low at $400 each.

DR. R. P. POAGE, Sheibina, Mo.

JACK AND STALLION FOR SHORTHORNS.

Will sell or trade for Shorthorn cattle, one imported black Percheron stallion; weight 2,000 pounds; one registered jack; black with white points; weight 1,200 pounds. Both have extra heavy bone and body and are great breeders; colts from weanlings to 4 years old to show.

MORELOCK BROS., Green Castle, Mo.

JACKS and JENNETS

For sale. Ten good, young jacks and 12 jennets. Priced to sell.

H. A. SCHWATKEN, Hammond, Kans.

THREE JACKS—FIVE JENNETS

For sale at reasonable prices. Five fine quality Mammoth bred jennets; from 3 to 8 years old; eligible to register. Two jack colts and one six year old jack; proven breeder.

J. M. HARLAN, Northboro, Iowa.

FEBRUARY 24
TUESDAY

40 Good, Big, Rugged, Heavy Boned Jacks and Jennets

Will Be Sold in Our

Third Annual Auction at Sterling, Kansas



Pharoah, Grand Champion at Tennessee State Fair in 1910.

25 Jacks 2 years to coming 6 years old; 15 Good, Big Broody Jennets, coming 3 to coming 6 years.

Everything registered and all black with white points.

We are selling the get of the greatest jacks in the United States, including the Grand Champion, Pharoah 2491.

We won more premiums on Jacks, Jennets and Mules at the last Kansas State Fair than all other exhibitors combined.

Be sure to attend. Sale in our large pavilion, rain or shine.

Write either one of us for catalog, mentioning American Breeder.

H. T. HINEMAN & SONS, Dighton, Kas., or D. J. HUTCHINS, Sterling, Kas.

Auctioneers: R. L. Harriman, Bunceton, Mo.; E. E. Potter, Sterling, Kas.; John D. Snyder, Hutchinson, and J. W. Clouston, Ness City.

es for sale a Blackhawk Morgan allion, Sherman Morgan.

John Heid, Flagler, Colo., Wants to ade a quarter section of land for Perheron or Shire stallion.

T. E. Collins & Son, Belleville, Kans., fer for sale one of the best two year d jacks we have ever advertised. ey have other jacks for sale, also.

R. J. Crawford & Son, Miles, Iowa, e making special prices on four Belan stallions, 6 to 7 years old, which ey say average in weight 2,300 unds.

C. McNulty of Morrowville, Kans., akes a public sale of jacks and jents at Concordia, Kans., on February . All western buyers of jack stock ould get Mr. McNulty's catalogue, r he is selling a lot of big, rugged ock of the kind necessary in the oduction of modern draft mules.

Messrs. Hineman & Hutchins, who ll jacks and jennets at auction at Serling, Kans., February 24, are the ners of two of the greatest herds of ck stock in the west. Few sales, ther east or west, will be backed by many high selling and prize winning imals as this one. Be sure to read te advertisement in this issue, and r catalogue address either D. J. tchins, Sterling, Kans., where the le will be held, or H. T. Hineman & ns, Dighton, Kans.

W. S. Boles & Sons, Enid, Okla., are aders in introducing the big draft od into the great horse raising sections of the southwest. This firm has ehibited its Percherons successfully the southwestern stock shows, and February 18 will sell at auction in id, a considerable offering made up nost entirely of the kind of stock ey have been showing. We hope evy reader interested in better draft ock for this section will write this m for a catalogue, and mention the merican Breeder.

Chas. Irvine of Ankeny, Iowa, whose blic sale of Belgian, Percheron and ench draft stallions and mares will held February 19, is typical of the hest class of these stock raising rmers of Iowa, who have put their te in the lead in draft horse sections. The fact that Mr. Irvine breeds works Belgian horses on his farm gularly, should make every man interested in the actual production of is kind of stock, anxious to put in a ll day and if possible, additional e to study Mr. Irvine's methods and h success. In order to have enough h class animals for this sale, Mr. Irvine found it necessary to make a ecial importation. The arrival of is importation is mentioned in anher part of this issue. The importation is already catalogued and will into the sale intact. Nobody but e buyers having a chance at anything it contains.

Louis Koenig, Solomon, Kans., is ofing two jacks, five and six years old, for sale in this issue at $1,000 cash.

H. P. Wickiein, Evansville, Ill., has a seven year old Mammoth jack for sale and some choice Duroc Jersey boars. Everything priced to sell.

Lew W. Cochran, the well-known breeder of Percherons, Belgians and Shires, of Crawfordsville, Ind., starts his ad in this issue. He has imported and home-bred animals, both males and females. If in the market for stock of this kind write him for full particulars.

W. M. Thorne, Purdin, Mo., is advertising some good jacks and jennets for sale in this issue, or would trade for Shropshire sheep.

Frank Busch, Villa Ridge, Mo., is selling out his jack stock and two stallions on account of old age. Write for particulars.

Brown & Ayres, Hillsboro, Ohio, are advertising their Belgian and Percheron stallions for sale. They have nine stallions of breeding age, five homebred stallion colts and 30 mares for sale.

John Henry of Fairfax, Iowa, is advertising large, heavy-boned Mammoth jacks from $250 up. Write him for particulars.

O. S. Johnston, Bonner Springs, Kans., has a fine large jennet for sale, or will trade for a two-passenger Frazier cart.

L. E. Tomkins of Palatine, Ill., is advertising a bargain in the way of a Percheron stallion. He will send his photograph and breeding to any one interested.

Hugo Westerman of Lake View, Ia., is offering three Percheron stallions for sale cheap. Look up the ad in this issue.

H. H. Sanders, Spring Valley, Ark., is advertising two stallions and one jack for sale at $1,000 for the three, as he is going out of business. Read the advertisement.

H. H. Eisenbath of Wentzville, Mo., has three extra good jacks and one Shire stallion advertised in this issue for sale.

W. R. Hawkins of Ravenna, Nebr., if offering three Percherons and one Belgian stallion for sale. Read the advertisement and write him for particulars.

Charles Irvine of Ankeney, Ia., writes that the importation of high class Belgians and Percherons which go in his public sale February 19, will arrive at New York January 30. This means that these horses will just have time to be in shape to insure good health, but will still be lacking heavy flesh on day of sale. Every horse man knows that this condition is of advantage to the buyer and the probabilities are that these imported horses will furnish great values to those who attend Mr. Irvine's sale, full particulars concerning which will be found in his advertisement.

February 24 is the date of Hutchins & Hineman's great sale of jacks and jennets to be held at Sterling, Kans. Our advertisement last week gave it as February 25, which is wrong. Be sure to send for catalog at once, either to D. J. Hutchins, Sterling, Kans., where the sale will be held, or to H. T. Hineman & Sons, Dighton, Kans. Read what the advertisement in this issue says. This is the sale to attend.

O. N. Wilson, Kittanning, Pa., is having a dispersion sale of 40 head of imported and home bred Percheron and Belgian stallions and mares, on March 4.

W. V. Hixson of Marengo, Iowa, writes of the Clydesdales he is offering for sale: "One of these stallions was first prize at our state fair in 1913, in three year old class, also first three years old and over bred by exhibitor. We also had first on farmer's teams owned in Iowa. This team is very closely related to the stallions I am offering for sale."

Peter J. Tisserat of Perry, Iowa, is advertising imported Percheron mares in foal, yearling stallions and stud colts. Write him if in the market.

C. D. Cutter, Coin, Iowa, has a three year old Percheron stallion for sale, also a stud colt.

J. M. Harlan, Northboro, Iowa, is advertising three jacks and five jennets for sale in this issue. The jennets range in age from three to eight, and the jacks consist of two two year olds and one six year old.

Lee Roy Judd of Dawson, Nebr., is advertising his stallion business and barn for sale in this issue; also an imported Shire stallion.

J. E. McWherter, Plymouth, Ill., is advertising in this issue Shire stallions from weanlings to eight years old, from $250 to $800.

J. H. Copeland, Fairfield, Iowa, has registered Clydesdale stallions and mares for sale. Also some Duroc Jersey bred gilts.

N. A. Schwald, Maxwell, New Mexico, wants to trade his equity in 20 acres of irrigated land for registered Percherons.

Taylor & Jones, Williamsville, Ill., write: "Our first importation of horses for the year 1914 just arrived at our barns. They left France on the 8th and arrived at New York on the ship, Minnewaska, on the 19th. They all came in in good condition and while some of them are a little thin in flesh, they show they are the sort that will feed out into extra good individuals and we will be glad to have those who contemplate buying a stallion for the coming season's business come and inspect this stock. We have Percherons, Belgians and Shires and we can please you in a horse to your liking at a very low price. We really think the horses in this importation have more good bone than any lot we ever imported. There has been no great amount of expense

Six Jacks

For sale. One extra good 3-year old past. Come and see this jack and if you don't find him a great big, good one, I will pay your car fare.

T. E. COLLINS & SON,
BELLEVILLE, KANSAS.

MAMMOTH JACK

AND SOME CHOICE DUROC BOARS

For sale. Jack is 7 years old; 15 hands high; heavy bone and body; a splendid performer; colts to show.

Everything priced to sell.

H. P. WICKLEIN, Evansville, Ill.

Prize Jack

For sale. Prize winner at Fort Worth; Kentucky bred; black, white points; registered. Perfect in every respect. Denmark saddle stallion; Kentucky bred.

ORVILLE E. PHILLIPS,
Dallas, Texas. Station A.

6--JACKS--6
17-JENNETS-17

The jacks are three and four years old, and they and the jennets are all good stock. All black with mealy noses. I want to close them out this spring, and will make the prices right.

JOHN A. EDWARDS, Englewood, Kas.

MAMMOTH JACKS AND JENNETS.

Our specialty is herd headers. Have them as good as grow. 48 years a breeding stable, have succeeded because we use the best that money will buy. Satisfaction guaranteed.

G. M. SCOTT,

Rea, Andrew County, R. F. D. 2, Mo.

Linn County Jack Farm

I have some good jennets and jacks for sale. They are extra large. Don't want to make any boast, but you can't beat them anywhere. Would consider a trade for some young Shropshire sheep.

W. M. THORNE, Purdin, Mo.

JACKS AND JENNETS

FOR SALE. Registered Jacks; all blacks with white points; from 15 to 15½ hands; 3 to 5 years old; well broke, good as grow. Jacks by the great sires, Dr. McCord No. 1766 and Dr. Long No. 1767. Stock raised right and priced right. Farm one-half mile from station on C. & A. railroad.

DILLINGHAM & DEWITT,
Pine Springs, Missouri.

MISSOURI REGISTERED BLACK SPANISH JACKS AND JENNETS

For sale. I have 6 jacks and 6 jennets, black with white points. I also have two stallions, both black; one imported and one three-quarter German Coach. I am selling out on account of old age and rheumatism.

FRANK BUSCH,
Villa Ridge, Mo. R. F. D. 1, Box 52.

MAMMOTH JACKS

For sale—Large, heavy boned, 15 to 16 hands high. Prices from $250 up. Located eight miles west of Cedar Rapids, Ia., near Fairfax.

JOHN HENRY, Fairfax, Ia.

DISPERSION FARM SALE.

Four miles south of Lake Park, Ia., February 25th. Registered Spanish Jack, 7 years old, black with white points, over 15 hands high and weighs nearly 1,000 lbs. He is sound, has plenty of bone and has groven to be an excellent breeder. (I bought this jack four years ago and he was the best I could find after looking over a large number.)

20 of his mules all from heavy draft mares. Eleven head coming three, nine head of ones and twos. 20 head of draft mares and colts. Four Percheron mares registered in P. S. A.

25 head of grade Angus cows and heifers. 100 head of immune sows, bred. Farm machinery, grain, etc.

Write for sale bill and photo of jack.

J. W. MARKS,
Lake Park, Dickinson County, Iowa.
On C. R. I. & P. R. R.

STALLION AND JACK

For sale. Imported Percheron stallion (66061) 87364; black; 17 hands high; 8 years old; weight 2,200 pounds; well sloping shoulders; short back and long hip; clean hock and plenty of bone, style and action. Extra good.

Jack is 15 hands; weight 1,100 pounds; 5 years old; bone like a draft horse; lots of style and action. Sure breeder and quick server. Colts to show from both animals.

Adam Becker & Son, Meriden, Kansas.

FINE LARGE JENNET

For sale, or will trade for Frazier two passenger cart.

O. S. JOHNSTON,

Route 1, Bonner Springs, Kans.

FOR SALE

Three extra good jacks and one Shire stallion.

H. H. EISENBATH, Wentzville, Mo.

THREE JACKS FOR SALE—From 3 to 5 years old; about 15¼ hands high; large, heavy bone and registered. All black with white points. Price reasonable if sold soon. Address S. A. FARNSWORTH, BLAIRSTOWN, MO.

TWO JACKS

For sale. Five and 6 years old last July; 15¾ and 16¾ hands high; weight 900 and 1,200 pounds. Cash $1,000 each. No trades.

LOUIS KOENIG, Solomon, Kans.

FINE TENNESSEE JACK

For sale; three years last September; 9½ inch bone; good head and ears and as smooth as a horse. Address,

GEO. COCHRAN, Jarbalo, Kans.

JACK FOR SALE.

Black, with white points; right age. Can't use him. Will sell right or trade for land.

R. W. HEDRICK, Cole Camp, Mo.

on these horses to date, except the first cost of importing and we can make very close prices on any of them.

Singmaster & Walker, Stock Yards Station, Sioux City, Iowa, Barn "S" will make special prices on Percheron stallions during the week of February 9 to 13, inclusive. The stallions on which special prices are to be made range from two to four years old and weigh from 1600 to 2100 pounds. One five year old Belgian stallion is also slated for a stiff reduction of price during that week. Refer to the advertisement and see what this firm is offering.

Chas. W. Stewart, West Chester, Ia., will make a special price for ten days on a pair of Suffolk fillies for $800, coming three this spring.

SAL-VET is a medicated stock salt which kills and expels stomach and intestinal worms and at the same time acts as a tonic and conditioner. It is so efficient that the manufacturers offer to send any reader of this paper a 60 days' supply before they pay for it and after using it 60 days if it does not do what is claimed, the charges will be cancelled. You take no risk in trying SAL-VET. All that is necessary is to fill in the coupon in the SAL-VET ad of this issue. Animals that are infested with worms or have poor digestion are always "hard feeders and hard lookers." Although they literally "eat their heads off" they do not thrive because they are unable to make good use of their feed.

Wright Bros. of Mt. Pleasant, Ia., have several head of registered Percheron stallions for sale at reasonable prices. See their ad. if in the market, and write them.

Schwabe Bros., of Chadron, Nebr., will send prices and samples of their alfalfa seed, cane, millet and sweet clover to any of our readers who are in the market. Their ad starts in this issue.

David Cooper & Sons of Freeport, Kans., start their regular ad in this issue. Among their stock of Belgians are state fair champions and first prize winners. A guarantee goes with all their stock. Do not fail to write them for prices and description if you are in the market for stock of this kind.

D. Teinert, York, Nebr., is advertising 15 Percheron stallions and mares for sale at farmer's prices. See his ad in this issue.

T. E. Collins & Son, Belleville, Kans., is offering six jacks for sale; one an exceptionally fine jack. Read their ad.

G. S. Lawson, Ravenwood, Mo., is offering his stock of jacks and jennets for sale as he is in failing health and cannot get competent help. The ad gives a good description of this stock.

Col. E. H. Urton, Clarksville, Ohio., has three Percheron stallions to dispose of. Look up the ad in this issue.

F. T. Wallace, Assumption, Ill., wants to trade five good Percheron stallions, some mares and fillies for land. Any one interested should write him for information.

J. P. Detweiler, Congerville, Ill., has Percheron stallions from weanlings to four-year-olds for sale, including prize winners.

J. E. Smith, Granger, Mo., is advertising jacks and Percherons at prices to interest any one in the market. Write him.

A. C. Briggs, Missouri Valley, Ia., has some jacks and a Percheron stallions for sale at a bargain.

W. E. Dustin, Topeka, Kans., has two coming three-year-old Percheron stallions for sale at $400 for choice. See the add.

A Liniment for Your Stable.—Real experience with Absorbine will prove to you that once used you will never be without it in your stable.

Peter Pursel of McCool Junction, Nebr., is offering three stallions for sale in this issue—two Shires and one Hambletonian. His ad tells about them. Be sure to read it.

Powell Bros., Weissert, Nebr., are offering their Percheron stallion, Hoosier 65573, for sale at a reasonable price.

F. T. Rogers, Murray, Ky., has some extra fine Spanish jacks advertised for sale in this issue, and will pay the railroad fare of any one buying a jack from him.

F. A. McCabe, Blue Mound, Kans., has three Percheron stallions for sale. See the ad.

John W. Wray, Fort Worth, Texas, has two champion mares and their filly and stallion colts for sale. Mr. Wray says these horses are thoroughly acclimated and sound in every way, and safe in foal to imported horse. Look up the ad.

The Pueblo Chieftain, Pueblo, Colo., wants our readers to send to them for information about the great opportunities offered in the state of Colorado for farmers, cattlemen and breeders.

J. C. Rohrs, Napoleon, Ohio, is offering Percheron stallions and mares of all ages for sale. Priced right. See his ad.

J. T. Hewitt, Mendon, Ill., has three jacks advertised for sale in this issue. See his ad.

Ed Joy, Golden City, Mo., is offering a 560-acre stock farm and his breeding stock for sale. This is for quick sale and can be had at a bargain.

W. F. Schade of Jackson, Mo., holds his fifth annual sale of jacks and jennets on February 10. Mr. Schade guarantees every animal as represented. His catalogues will be ready to send out February 1. Don't fail to send for one, and mention the American Breeder.

Cook & Brown, Lexington, Ky., would like to tell any of our readers who are in the market about their Percherons, jacks, saddle stallions, etc., which they have for sale. They make prices and terms to suit. They have a new ad in this issue.

J. T. Schwalm, Baldwin City, Kans., is advertising in this issue seven head of registered Percheron stallions, also a few mares which he will sell at a bargain. Don't fail to look up the ad.

Jas. Spear, Stanwood, Ia., has three Clydesdale stallions and eight mares advertised for sale in this issue at a bargain if taken at once.

Doolin Bros., Harris, Kans., have a good black jack with mealy points, six years old, advertised for sale in this issue at $500. Write them for full particulars.

Will H. Ade, Kentland, Ind., has imported and American bred Belgian stallions and mares for sale at prices that will suit the buyer. His stock is all acclimated. See his ad.

Paul C. Oldenburg, auctioneer, or Gust Wudtke, Owner, Elmore, Minn., will be glad to tell you all about the Percherons and Belgians they are selling at public sale, February 20. Look up the ad.

F. E. Aikman, Lyons, Iowa, is advertising two registered Percheron stallions and a few weanling stud colts for sale at reasonable prices.

C. E. Rants of Booneville, Iowa, wants to close out his stock, so is offering his imported Belgian stallion for sale. This stallion is three times winner at the Iowa State Fair. His ad appears in this issue.

F. E. Knowles, Wichita, Kans., is advertising two stallions and one jack at a bargain if taken before March 1. Read the ad in this issue.

S. C. Nunnelley of Lexington, Ky., starts his jack ad in this issue. He has Kentucky bluegrass bred and raised stock and invites any of our readers who are in the market to write him for information about his stock, or come and see them.

P. W. Anderson, Madison, Minn., wants to handle a stallion on shares with a view of buying. His ad appears in this issue.

Charles H. Clancy, Baryties, Mo., is offering one Kentucky saddle stallion, one imported German Coach and four young jacks for sale. Don't fail to look up his ad if in the market.

L. E. Ditto of Senton, Ill., is offering two Percherons and one Clydesdale stallion for sale in this issue, and invites any of our readers who are in the market for a stallion to come and look at his stock.

Craig Bros. of Pittsville, Mo., have two saddle stallions advertised in this issue for sale. They are going out of the business and will sell these horses worth the money.

J. J. Murray, secretary of the Marshall County Breeders' Association, Lewisburg, Tenn., is announcing a jack sale for February 21, consisting of 55 head of the best jacks ever assembled in a sale in Tennessee. Catalogues are ready and will be mailed to any one interested.

C. E. Hodgden of Galesburg, Kans., wants a position to handle horses. He is a graduate of the Graham Scientific Breeding School. His ad is in this issue. Write him for full particulars.

E. C. Wade of Griggsville, Ill., is advertising his first prize jack for sale in this issue at a bargain price if taken soon.

W. H. Gosney of Goddard, Kans., has a registered Percheron stallions and



JACK AND JENNET AUCTION

Concordia, Kas., Feb. 28

30 - JACKS and JENNETS - 30

This stock ranges from 2 to 8 years old, and from 14½ to 16½ hands high. It is the kind of big, rugged stock used in producing the draft mules for which Kansas is becoming famous.

Everything will be registered or eligible to registry, and will be guaranteed as represented. Send to me for catalog at once, addressing

C. McNULTY

R. L. HARRIMAN, Auctioneer **Morrowville, Kansas**



JACK AUCTION SALE

50 Registered Tennnssee Jacks

Saturday, February 21, 1914, Lewisburg, Tenn.

Jacks from 1 to 7 years old, carrying the best blood that Tennessee ever produced in jack stock; excellent individuals and proven breeders. This rare collection of jacks sold under the management of the Marshall County Jack & Jennet Breeders' Association, whose last October sale dispersed 80 head of jacks and jennets at bargain prices.

Come to a sale where you will have the largest and best collection of jacks to be found in any sale in America this spring. We represent what we have and sell what you buy, giving every buyer the fairest and most truthful representation, and our last sale was so regarded. We offer jacks in this sale that are the equal of any we ever bred in Marshall County whose jacks have been shipped and shown in the best rings with success. If you failed to attend our October sale, be sure to grasp this opportunity of securing real bargains. If interested, write us for catalog and information.

LET US TELL YOU BY PRIVATE LETTER WHAT WE SHALL OFFER THE JACK BREEDERS AND FANCIERS IN OUR SALE, FEBRUARY 21, 1914.

Marshall County Jack & Jennet Breeders' Association

S. B. Davis, President. J. J. Murray, Secretary.

R. L. Harriman, Auctioneer.

LEWISBURG, TENNESSEE

JACK SALE

MT. AYR, IA. MARCH 5th

23 Jacks and 10 Jennets

Write Me for Catalog, Mentioning American Breeder.

WILLIAM T. TROTTER - MT. AYR, IA.

an Arabian stallion advertised in this issue for sale or trade for good jack, young mules or Percheron fillies. If interested look up the ad.

Peter Anderson, Piper City, Ill., will hold a public auction on February 13, consisting of Percherons and Polled Durham cattle. It would undoubtedly pay any of our readers who are in the market for stock of this kind to send and get a catalog which tells all about the stock he is selling.

J. E. Dreier of Hesston, Kans., is advertising an imported Percheron stallion for sale in this issue.

J. E. Bradley, Carthage, Mo., is offering high class saddle stallions at bargain prices. Also some big black Mammoth jacks and jennets. He is selling this stock at a low price on account of failing health.

Ed Boll, Jr., of Scribner, Nebr., is advertising a carload of Belgian stallions—imported and home-bred—for sale at prices to sell. Read the ad.

Edd Ahlemeyer of Poland, Ind., has some large, heavy boned jacks advertised for sale in this issue at the right kind of prices. He guarantees everything as represented. Write him.

G. B. Weaver of Harrisonville, Mo., is compelled to quit the business on account of his age and other business, and will close out his stock of jacks. Any one in the market for a jack should not fail to write him for particulars.

Wm. H. Dilworth & Sons of Table Grove, Ill., are advertising their herd stallions for sale, as they want to dissolve a partnership. Their ad appears in this issue, giving a good description of their stock. Write them for further information.

James Loonan & Son of Waterloo, Iowa, are offering a very choice lot of registered Percheron stallions and mares, nearly all of their own breeding. Their horses have been raised out of doors in the rough and as a result have developed exceptional bone and muscle, large frames, good middles and strong constitutions. The coming two and three year old stallions have run in the pastures all summer and are not overloaded with fat but are in the best possible condition to do a successful season's service. The mares are either at work or are running out and are in condition to produce good strong foals. The noted sire Superior 40605, weighing 2300 pounds, has been at the head of their stud the past eight seasons and a large per cent of this offering are sired by him. Those interested in a good young stallion or a brood mare will do well to write or visit Messrs. Loonan as they have over 60 head to select from and their prices are very reasonable.

Arthur Colegrove of Girard, Kans., is offering his Percheron stallion for sale on account of his fillies being in the way. Read his ad.

James Ruth, Luray, Kans., wants to sell or trade his Mammoth jack for a pure bred Percheron mare. His ad is in this issue.

J. W. Richards, Ferris, Ill., ships seeds on approval and will send samples and prices to any of our readers in the market for seeds of any kind. Read his ad.

A. U. Dunbar of Galesburg, Ill., says he will pay the expenses of any of our readers who do not find his stock as represented. He sells Percherons from a strain that are producers. See his ad.

J. G. Thompson & Sons of Steubenville, Ohio, is advertising in this issue three Clydesdale stallions. Will trade one of them for one of the same breed equally as good.

Lew Jones of Alma, Kans., has three jacks and wants to sell two of them and invites our readers to come and take their choice.

B. H. Bagley of Zenith, Kans., is going to quit the business and is offering his breeding stock for sale. He has two stallions and two jacks. Write him for prices and descriptions of his stock.

A. J. Robnett of Farina, Ill., is advertising a trotting stallion, land and Buff Orpington chickens, and ducks for sale in this issue. Read his ad.

O. T. Karr, Quitman, Mo., is closing out his stock, as he has other business and cannot attend to it. He has stallions, jacks and jennets. His ad in this issue gives a good description of his stock.

Showman & McClaren of Donlphan, Mo., are advertising some bargains for sale in the way of three stallions and two jacks and their feed and sales barn.

W. H. Skibliuskl, Richview, Ill., makes a specialty of breeding big registered jacks and has for sale at all times imported and home bred Percheron stallions. His ad appears in this issue.

R. I. Little, Fairfax, Iowa, sells his stock of Percherons and jacks on easy time payments at six per cent interest. See his two ads in this issue.

C. G. Anderson, Hector, Minn., has a choice selection of Percheron stallions and mares on hand at all times. Write him if in the market.

Eli Smith of Cushing, Okla., is advertising three Percheron stallions, two bay drivers and three jacks for sale in this issue, or will trade for land. Look up his ad.

J. A. Evermeyer & Son, Troy, Mo., wish to sell or exchange their three stallions on account of their fillies. They have a Shire, a German Coach and a saddle stallion. Read the ad.

Wm. Wahlert, Ervay, Wyo., is pricing his 5-year-old Percheron for sale at $400 if taken at once. Here is a bargain for someone.

Lane Realty Co., Dighton, Kans., have a good farm, all under cultivation, to trade for Percheron stallions, mares or fillies.

Philip Schwnderer of Agosta, Ohio, is advertising one Percheron stallion, one 5-year-old mare, and a stud colt for sale in this issue, as he is quitting the business.

James Auld of Wakefield, Kans., is advertising seven Shire stallions for sale at prices from $250 up to $650.

J. L. Crockett of Piggott, Ark., wants to sell his Percheron stallion or trade for good jennets. Anyone interested should not fail to investigate.

Chas. Cappel, Logansport, Ind., is advertising four Shire stallions for sale in this issue. Write him for full information.

Lew Jones, of Alma, Kans., advertises some exceptionally good animals in both Belgians and Percherons. Last fall he took three stallions and one or two mares and a colt, and showing at two state fairs and the American Royal, won 27 first and championship ribbons; three seconds; two gold medals and three silver medals. No breeder, or importer, large or small, at the fairs could show a more high class exhibit, although, of course, many of them had out more horses. The animals which Mr. Jones did not show are of the same class as his winners, in evidence of which he offers to sell the choice of anything on his farm, retaining what is left for his own use. This ought to be proof enough that every animal advertised is desirable and all right in every way.



1—Julius Lebantsching and his winning jack at Illinois State Fair. 2—A gray prize winner in Illinois last fall. 3—Sample team of Illinois draft mules. 4—"Hats off to a good one."

W. F. Schade, Cape Girardeau, Mo., asks the attention of our readers to the advertisement of his fifth annual jack sale, in another column. Mr. Schade is well and favorably known to stockmen, having a wide reputation, as for twenty-four years he has been handling jacks and jennets, and his annual sales have become a feature, which draw buyers from many states. In this sale will be offered 25 jacks and jennets, most of the latter bred to a son of Orphan Boy No. 696, grand champion at the St. Louis World's Fair. Anyone interested in jacks or jennets will do well to write Mr. Schade for a free catalogue and attend the sale.

Trumans' Pioneer Stud Farm, Bushnell, Ill., writes: "Among our recent sales we wish to report the sale of an imported Shire stallion to the Walnut Horse Improvement Company of Pottawattamie County, Iowa. In selecting their stallion, this company was very particular. What they required was a strictly high-class horse, one that would improve the draft horse industry of that section. To Mr. Samuel Insull for his Hawthorn Farm, Lake County, Illinois, we have sold the imported Suffolk stallion, Darsham Onyx, three years old, weighing around 2100 pounds; a winner of numerous prizes in England, including the great Royal Show. This is a very valuable addition to the large stud of Suffolks at Hawthorn Farm. Very recently we had the pleasure of selling to Mr. F. A. Huddlestun, Edgewood Farm, Hamilton County, Iowa, the imported Shire stallion, "Bury Cannonball," to head his noted stud of pure bred Shire mares, a valuable addition to which he made at the Williams sale. Mr. Huddlestun is an old customer of ours, we having sold him "Goarby Duke," a horse that was at the head of Edgewood stud for a number of years and proved such an extraordinary breeder. In "Bury Cannonball" he has just such another horse, standing on the best of feet and joints, hard, flinty bone, tremendous width and depth, beautiful

(Continued on page 31.)



Missouri Registered Mammoth Jacks and Jennets

FOR SALE AT ALL TIMES.

As fine a bunch as can be found on one farm. Guaranteed as represented. Prices right. Come and see them.

J. T. WATSON,
New London, Ralls County, Mo.

40--Big Black Jacks and Jennets--40



Come to one of the oldest jack farms in Missouri. I make a specialty of breeding the big kind; extra big bone; big bodies. My barns are full of big young ones from 2 to 6 years old; 15 to 16½ hands.

ED BOEN, LAWSON, MO.

(Lawson is located 38 miles northeast of Kansas City on the C., M. & St. P. Ry., also 40 miles southeast of St. Joseph on A., T. & S. F. Ry.)

HOME OF THE GIANTS.
100—JACKS AND JENNETS—100

"Our motto is from good to as good as grow." Some real herd jacks. Our jacks are all Mammoth and are the big, thick, big boned; big footed kind. Raised mostly by ourselves and our neighbors. Every one guaranteed as represented.



BRADLEY BROS., Warrensburg, Mo.
65 miles east of K. C. on Main Line Missouri Pacific.

HEADQUARTERS FOR JACK STOCK

LIMESTONE VALLEY STOCK FARM.



The best trade of North America has for years supplied itself largely with Jacks and Jennets from our herd. The World's Greatest Show Yard Winnings and Public Sales are a part of our record. The same honest values always open to private buyers; the Square Deal for all.

L. M. Monsees & Sons, props., Smithton, Mo.

5th Annual Public Sale

OF 25 HEAD OF HIGH CLASS REGISTERED BLACK JACKS AND JENNETS.

JACKSON, MO., TUESDAY, FEBRUARY 10, 1914.



Every animal guaranteed to be as represented. Nothing priced or sold privately after catalogued. If interested, **write for catalogue and come to the sale.** You will not be disappointed but highly pleased with the offerings. Catalogues will be ready to mail February 1, 1914.

W.F.SCHADE, Jackson, Cape Girardeau Co., Mo.

CLOSING OUT MY JACKS.

To quit the business on account of my age and other business. One 8 years old, good worker on mares and jennets; three, 3 years old, good workers on mares; all black with white points; big bone and feet; heads and ears; 15 to 15¾ standard. If you mean business, write for particulars.

G. B. WEAVER, Harrisonville, Mo., R. 1

(Anyone can get a half carload of jacks in this neighborhood.)

25 Mammoth Jacks and Jennets

For sale. I have more high class jacks and jennets to offer the public this season than I have ever had before. They are bred right; priced right, and fully guaranteed.

JAS. M. SPURGEON,
Williamstown, Lewis County, Mo.

JACKS AND STALLIONS FOR SALE.

One imported Shire, coming 8 years; 1 pacer, gentle and broke; 1 three year old jack, first at Illinois State Fair last fall, 1 jack coming four and 1 five. All five for $3,000 if taken before February 15—a bargain. All sound and breeders with colts to show.

Julius Lebantschnig, New Douglas, Ill.

FOR SALE OR TRADE

for pure bred Percheron mare, my Mammoth jack; black with white mealy points; registered; heart girth, 68 inches; flank, 70 inches; above knee, 15 inches; below, 9½; above hock, 16; below, 11; 16 hands high; nine years old; sound; a prompt server and sure.

JAMES RUTH, Luray, Kans.

JACKS FOR SALE.

Seven first class jacks; ages one to six. Bred right; raised right. Priced to sell. Colts to show. Mares in foal for those of proper age. Also some good jennets; ages one to seven.

L. W. Garriott, Austin, Scott Co., Ind.

KENTUCKY JACK AND PERCHERON FARMS.



Two hundred head of big bone Kentucky, Mammeth jacks, saddle stallions, mares, colts and fillies. The jacks and saddlers you want are here. 2500 bushels of blue grass seed. Our prices and terms will suit you. Write us your wants or visit our farms.

COOK & BROWN, Proprietors, LEXINGTON, KY.

JACKS



Kentucky Bluegrass bred and raised; the foundation of all other states. Old Honesty has the blood lines of all who have made success and fame in the jack business. Write your wants or come to my barn at Greendale. Electric line right at door. Stop 10.

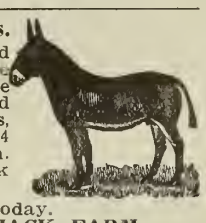
S. C. NUNNELLEY,
Lexington, Ky. Route 6.

FINE MAMMOTH JACKS

For sale. Large heavy bone jacks; black, with white points; 4 and 5 years old; broke to serve mares and jennets; 14½ and 15.3 hands high, with lots of life, style and finish; fine breeders; colts to show. Everything guaranteed as represented. Prices right.

EDD AHLEMEYER,
Poland, Clay County, Ind.

JACKS AND MULES.



Eighteen jack and mule farms under one management, where can be seen 380 head of fine large jacks, pennets and mules, 14 to 17 hands high. Good ones. Stock guaranteed.

Write for prices today.

KREKLER'S JACK FARM,
WEST ELKTON, O.
Branch Barns, Clinton, Indiana.

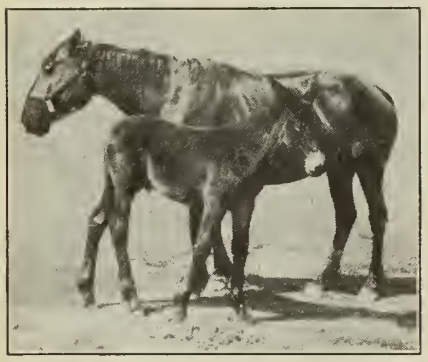


Photo (taken at 20 days) of capsule colt belonging to Harry Richardson, Elk County, Kans., that sold $15 or $20 higher than the average mule colts of that section.

ANOTHER GOOD, YOUNG MULE.

To the American Breeder:—Let's hear from some good mule colts. A colt belonging to a neighbor of mine, M. M. Adams of Kincaid, Kans., and sired by a jack that belongs to W. H. Bayless of Blue Mound, Kas., weighed 800 pounds, January 11, 1914. She is not a year old till in March. At the time of the American Royal this mule weighed 635 pounds. At the present time she measures from tip to tip 26 inches; front cannon eight and one-half inches; hind cannon nine and one-half inches; heart measurement 68 inches; flank 70 inches; front knee 14 inches.—E. E. Hall, Anderson County, Kansas.

LIVE STOCK ASSOCIATION REORGANIZED.

The Kansas Live Stock Association, made up largely of shippers, feeders and breeders, has been reorganized. The newly elected officers are: W. J. Todd, president; George E. Tucker, vice president, and J. H. Mercer, Cottonwood Falls, secretary.

REX BLEES IS DEAD.

G. M. Scott, of Rea, Mo., reports the death of his famous saddle bred stallion, Rex Blees, at 16 years. Rex Blees won second in class at the St. Louis World's Fair and was valued at $5,000.

The WHY and the HOW of the Standard Jack and Jennet Registry of America

The WHY.—Prior to the year 1908, a man owning a first class jack, even though of good type and ample size could not register it if it happened to be of any other color than black with white points; while a man owning an inferior, spindle legged, small bodied jack, could have it registered if it was of a certain height and black with white points. Such a state of affairs seems too absurd to have ever existed, but it did. It does not require an over supply of brains to understand that such a standard could only result in the development of a weakling type of jacks and jennets, and making it more difficult to keep up to market requirements in mules, thus adversely affecting one of the greatest industries in the world and representing millions of dollars.

In addition to this evil, was the injustice to the owners of good jacks and jennets of other colors, who were not permitted to register them. As to the color of a jack, that is a mere matter of taste. There is no doubt that many prefer black, but there are also many who prefer gray and other colors and there are thousands of jacks of other colors that are good jacks. Black is a good color and I have no objection to it, but of what practical use is color when applied to pulling a heavy load up a steep hill? Is there any doubt that quality, constitution and conformation should have first consideration, and color the very last?

Here is a statement signed by a number of mule men, just before the Standard Jack and Jennet Registry of America started (note where they place color): "We, the undersigned, want to encourage mule raisers to raise good mules, with **quality, plenty of body and bone, regardless of color,** instead of the tall rough mules. Too much value has been placed on the number of hands high, you should raise better proportioned mules without so much daylight under them."

An instance of the damaging results of the over-education of breeders in the matter of black jacks, was the awarding of first prize, at a recent state fair, to a black jack with white points in preference to a superior jack which happened to be a little off-color, having a slight reddish cast in his coat of black. One of the judges stated to the owner of the off-colored jack, that his jack was really the superior animal and that the award was secured by the other because of color. The owner of the inferior jack admitted to the owner of the off-colored jack that his jack was the better animal, and stated that he wanted some colts from it. Can there be a more striking example of deceiving the public and the breeders, who were bound to believe that the award was made on account of color? If there is a "Doubting Thomas" who thinks that color should have any place in a registry, I invite him to write me for further enlightenment.

Breeders grew to realize the need of a jack registry with requirements that would develop a uniform type, establish a standard, and give every breeder the privilege of registering every good jack and jennet, regardless of color. A number of such breeders and mule dealers appealed to Mr. Frank B. Graham to establish such a record. This is the WHY of the Standard Jack and Jennet Registry of America—the WHY of the change in the old order of things.

The HOW is shown by the results. Breeders, all over the country, immediately recognizing the fact that the principles upon which this Registry was founded were sound and that it was destined to raise the standard of jacks, jennets and mules throughout this country, gave it unprecedented support from the beginning, with the result that the Standard Jack and Jennet Registry of America is now the largest jack registry in the world. It has attained this development in the remarkably short time of five years. From the very beginning the needs of those most vitally interested were given first consideration.

This Registry is owned by the breeders themselves and its policies are directed and controlled by them. It was incorporated in September, 1912. A breeder may become a member by buying a share of stock for $10.00. There are no dues of any kind and all members are entitled to the lower rates for registering, transferring and for the stud book. Volume I of the Stud Book is now in distribution and Volume II will be out in a short time.

Breeders who desire to have jacks and jennets recorded in this Registry, but have certificates from other jack registries, may obtain certificates free, by forwarding the certificate from the other registry attached to our regular application properly executed—it being understood that the animal, in every case, must meet the requirements of this Registry. This action was taken in order to save a double expense to the breeders who want to get right. We want the hearty co-operation of every honest breeder in fulfilling the purpose of this registry, which is the establishing of a uniform type, of standard size, which means better jacks, better jennets and better mules with the consequent advantages to the breeders, the buyers and the users.

Following is a list of the thirty-eight officers, directors and honorary vice-presidents of this Registry, who were chosen at the last annual meeting, October 6, 1913:

President, T. E. Collins, Belleville, Kas.; Vice-President, J. T. Watson, New London, Mo.; Secretary and Treasurer, William E. Morton, Kansas City, Mo.; T. L. Bradley, Warrensburg, Mo.; H. L. Duvenick, California, Mo.; S. L. Green, Celeste, Texas; Tuck Hill, McKinney, Texas; H. T. Hineman, Dighton, Kas.; S. W. Jetton, Murfreesboro, Tenn.; C. F. Rice, Indianola, Ill.; U. G. Saunders, Flemingsburg, Ky.; J. H. Smith, Kingfisher, Okla.; Lester Swink, Rocky Ford, Colo.; Honorary Vice-Presidents: G. L. Anderson, Cashion, Okla.; John Burrell, Hanford, Calif.; C. H. Clancy, Baryties, Mo.; J. E. Clary, Sheridan, Mo.; N. S. Cox, Pattonsburg, Mo.; A. Lee Ely, Monroe City, Mo.; Earl Gibbons, Greenup, Ill.; Clem Gude, Hamburg, Iowa; J. K. Hastie, Artesia, N. M.; J. H. Hardin, Nineveh, Ind.; J. H. Hill, Westphalia, Kas.; L. W. Hoyt, Barry, Ill.; D. J. Hutchins, Sterling, Kas.; H. C. Jackson, Dimmitt, Texas; T. S. Lett, Paris Crossing, Ind.; Perry Long, Genoa, Ohio; M. G. Michaelis, Kyle, Texas; R. N. Montgomery, Rich Hill, Mo.; Dr. J. A. Moore, Durant, Okla.; C. D. McMurry, Mount Hope, Kas.; Ed. F. Rankin, Tarkio, Mo.; Al. E. Smith, Lawrence, Kas.; B. F. Swaggart, Lexington, Ore.; W. W. Wagner, McIntosh, N. M.; H. A. Wehrmann, Monticello, Mo.

These men, representing thirteen different states, are among the biggest breeders in the world and own approximately 2,000 jacks and jennets. They are believers in this Registry and are hearty and enthusiastic supporters.

Under the requirements for registration, foundation stock may still be registered provided it meets the required measurements, which are, for jacks (rule 2), "Jacks must measure 58 inches or more from the highest central part of the withers to the ground, and measure 62 inches or more around the heart girth in average condition, and have 7 inches or more measurement around the front leg at the smallest place between the

DEIERLING & OTTO'S

MAMMOTH JACKS AND JENNETS



40 head big, black Mammoth jacks, 25 jennets—the big, wide-out, 15 to 16 hands kind; from yearlings to 6 years old. Mostly two's and three's of our own breaking. Black with white points; heavy boned and good, including our 1913 prize winners.

We have a splendid lot of young jacks, jennets, Percherons, Saddle, Coach and Trotting horses to trade. Correspondence and inspection invited.

DEIERLING & OTTO, Queen City, Mo.
Main line Wabash—St. Louis-Des Moines Line.

FOR SALE CHEAP.

Iif taken soon, one black Percheron stallion; weight, 1,700.

One black jack; 14½ hands high; 9½ inch bone.

One dark grey jack; 15½ hands high; 9 inch bone.

E. C. Garrett, Harrisonville, Mo. Rte 1.

JACKS AND JENNETS.



Eighty large boned black Mammoth jacks, 15 to 16 hands standard; guaranteed and priced to sell. The kind all are looking for. Also good young Percheron stallions. Reference, five banks of Lawrence. Forty miles west of Kansas City on Santa Fe and Union Pacific

AL. E. SMITH, Lawrence, Kans.

JACKS AND STALLIONS

For sale. Registered jacks; all black with white points; from 15 to 15¾ hands; from 3 to 6 years old; well broke and as good as grow.

Percherons from 2 to 8; the big, good kind, weighing from 1700 to 2100 pounds; all guaranteed as represented.

J. E. PARK, Owner, CAMERON, MO.

TEN JACKS

For sale; 15 to 16 hands standard; 2 to 5 years old; big heads and ears; lots of bone and foot. Write for photo of best jack in Missouri.

BEN M. GREEN, Cape Girardeau, Mo.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address

J. C. HUCKSTEP,
Eolia, Pike County, Mo.

KENTUCKY JACK FARM
Established in 1884.

A fine lot of black Mammoth Kentucky jacks. Big bone and plenty of weight. Will sell at special prices in order to make room for young stock. We sell more jacks to the Western trade than any breeder in Kentucky. Write for prices or come and see me. Guarantee to please our customers.

Joe E. Wright, Junction City, Ky.



Registered big boned Black Jacks and Jennets. Fine individuals; best breeding; priced right. **J. H. SMITH, KINGFISHER, OKLA.**

FIVE MISSOURI JACKS

for sale, one to five years old. Prices right. Address,

FRANK GIBBS, Bowling Green, Mo.

TEN GOOD BREEDING JACKS.

Also imported Percheron and Belgian stallions; some weigh 2160 pounds. Stock for sale on long time payments, 1, 2 or 3 years at 6 per cent.

R. I. LITTLE,
Fairfax, Iowa. Route 2.

THREE JACKS FOR SALE.

Black with light points; old enough for service. Six young ones in the barn.

J. T. HEWITT,
MENDON, ILLINOIS.



JACKS AND JENNETS.

Thirty-five head of Mammoth jacks and jennets for private sale. Jacks in age from 1 to 5 years old; in size up to 16 hands. These jacks are all good ones, black with white points. I have one of the best herds of jennets in Kentucky. I raise all of my own stock and will sell them worth the money. Write for prices today, or better, come and see them.

U. G. SAUNDERS, Flemingsburg, Ky.

REGISTERED JACK

For sale. Black, with white points; weight, 1100 pounds; stands better than 15 hands standard; 6 years old. Good, clean jack; extra good head, ears and feet. Took first prize at state fair in one year and under two class. Quick server and good breeder. Price right if taken soon. Address

E. C. WADE, Griggsville, Pike Co., Ill.

22 TENNESSEE JACKS



Fine large; all ages. Also 12 jennets in foal.

Also fine saddle stallions. Prices right. Ask for catalog.

S. W. JETTON & CO., Murfreesboro, Tenn.

I MUST SELL MY HERD JACK,

Sheridan 4828. Jennets by him in his way. Sound and serves well on mares and jennets; 8 years old; weight 1125 pounds. Come and see his colts. Also for sale 8 months to 3-year-old jacks and a few jennets.

Big boned Poland China hogs; both sexes for sale. Come and see all my stock and make me an offer.

Henry Obermann, Friestatt, Lawrence County, Mo.

8--MAMMOTH JACKS--8

For Sale—from 3 to 5 years old; 14¾ to 16¼ hands standard measure; good breeding; broke right. Also a few jennets. One black imported 7-year-old Percheron stallion. Priced to sell. Stock in town.

L. W. HOYT,

BARRY, Pike County, ILLINOIS.

JACKS.



20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.

Phil Walker, Moline, Elk County, Kas.

THE OLD RICHMOND JACK FARM

I make a specialty of breeding big registered jacks, with lots of bone; substance and finish. These jacks are raised right and all good servers. I also have at all times imported and American bred Percheron stallions. Prices right. Terms to suit.

W. H. SKIBINSKI, Richview, Ill.



300 HEAD of Colorado raised Jacks, Jennets, Mules and Brood Mares. All guaranteed. Prices right. **Lewis Swink & Son, Rocky Ford, Otero County, Colorado.**

SPANISH JACKS for sale. Extra fine. Some of the same blood has sold for $4,000. Good breeders. We pay your railroad fare when you buy from us. If you want a fine jack cheap, address F. T. ROGERS, Mgr., MURRAY, KY., Route 3. This ad will not appear again.

I HAVE THREE JACKS

and need only one. They are strictly good and O. K., and you can have your choice. I'll have a mighty good jack left after two have been picked out. Come and See. **LEW JONES, Alma, Wabaunsee County, Kans.**

JACKS AND PERCHERONS FOR SALE

Two black jacks, 4 and 5 years old, also Percheron horses. Priced to sell.

J. E. SMITH, GRANGER, MO.

GOOD JACK FOR SALE.

Weighs about 1,000 pounds, black with mealy points; 15 hands standard; heavy bone and blocky; 6 years old. Colts to show. Price, $500.

BOOLIN BROS., HARRIS, KANS.

ankle and the knee, leg to be normal size," and for jennets, (rule 3), "Jennets must measure 56 inches or more from the highest central part of the withers to the ground, and measure 60 inches or more around the heart girth in average condition, and have 6¾ inches or more measurement around the front leg at the smallest place between the ankle and the knee, leg to be normal size."

At the stockholders' meeting, above mentioned, the requirements were made more difficult to meet, the change is to go into effect on June 1, 1914, at which time new application blanks will be distributed.

Special attention is directed to the fact that each application must be sworn to, thus practically eliminating the possibility of fraud. Attention is also directed to "rule 5," which reads, "Young undeveloped Jacks and Jennets may be registered when their sire and dam are registered in this Registry, provided the Sire fills the above measurements. Just think what the clause, "provided the sire fills the above measurements," means! It means that at all times in the future the standard is to be maintained; it means that the safeguard of a certain standard of uniformity and size, in the sire is to be applied to each generation. No jack should be used on jannets unless he meets these requirements.

Breeders are urged to send in their applications as soon as possible for the reason that the busy registry season is now on, and the certificates are issued and sent out in the order that the applications are received at the Registry—first come, first served.—William E. Morton, Secretary, 920 Scarritt Building, Kansas City, Mo.

"A SCHOOLING FROM THE PAPER"

To the America Breeder:—I feel like I should drop you a line as your valued paper has done so much for me. I am sure it could do as much for others, and every little bit added to what you have got, just makes a little bit more, and if you just keep on reading you will soon have a schooling from this paper. I only hope I can get to go to the Graham Breeding School for I know it would be money well spent..—R. B. Haugh, Maricopa County, Arizona.

FEED TEST WITH BREEDING HEIFERS.

To the American Breeder:—One hundred and two Hereford heifer calves at the Kansas Agricultural College were assigned the responsibility this week of proving to the world the value of the various kinds of silage and of concentrated supplements to silage—cotton seed and linseed meal—in growing and developing breeding heifers. In six lots of seventeen each, they began eating different rations Monday morning. Next April, when results should be available, the animal husbandry department, which is conducting the test, will invite the cattlemen of the state to meet at the college to observe the final stages of the test and to get the benefit of the lessons learned first hand. W. A. Cochel, head of the animal husbandry department, believes the test to be the most complete and exhaustive in America in the development of breeding stock in an experimental way.

Lot 1 will eat kafir silage, wheat straw, and one pound of linseed meal to the head daily. Lot 2 will eat corn silage, wheat straw and linseed meal. Lot 3 will get can silage, wheat straw and linseed meal. The fourth pen will have cane silage, wheat straw and cotton seed meal; the fifth, cane silage, wheat straw and cold pressed cotton seed cake; the sixth, cane silage, wheat straw and alfalfa hay. In all lots the silage and straw are fed according to appetite—as much as the animals will eat—while the cotton seed meal and linseed meal are fed at the rate of one pound a day for each animal. To make up for the lack of grain in all corn silage this year, one pound of corn chop is being fed to each animal daily.—Publicity Bureau, Kansas Agricultural College.

WORK THIS PUZZLE ! SEND NO MONEY ! !



$50 CASH PRIZE

Also many other valuable prizes. The above two sketches represent TWO CITIES IN CANADA Can you tell what they are? **GIVEN AWAY.** Surely you can solve this PUZZLE, SO DO SO. If you can make out the names of the Two Cities we will send you a BEAUTIFUL PICTURE POST-CARD FREE—also a certificate of entry in our PRIZE CONTEST. Somebody who sends for the particulars of this PRIZE CONTEST telling us WHAT TWO CITIES ARE REPRESENTED by the above Two Sketches, will receive a **$50 GOLD WATCH or $50 IN GOLD MONEY** as per the certificate, and in the event of a tie between two or more persons for the prize, a prize identical in character and value with that tied for will be given to each person tied. Try at once. It may be you. Send your answer on Postcard or letter, write name and address plainly

Dominion Watch Co., Dept. 2 Montreal, Canada

WHY NOT GROW MORE CATTLE ON FARMS?

To the American Breeder:—The present summer has furnished additional evidence of the scarcity of cattle in the United States. Under normal conditions the immediate result of a severe drought, such as has prevailed in several states in the middle west this summer, is to rush cattle to the markets in such numbers that supply greatly exceeds demand with the resultant lowering of prices. Several weeks ago, when pastures were getting short and water for stock failing in many localities and leaden clouds and mystified weather reporters promised no relief, word was telegraphed to farmers and feeders that a big run of cattle was expected. There was some increase in the supply, but the "big run" was in prospective buyers. They came in droves, somewhat resembling a homestead run at the opening of a new allotment of government land, and what was expected to be a slaughter of values of feeders proved a good market for those who were forced by drought conditions to liquidate.

No one who desires the continued prosperity of the cattle industry can regret the excellent prices cattle raisers are getting for their feeders. Yet farmers who pay these prices and then have to wrestle with the problem of costly feed and problematic markets in order to make a profit on their ventures might well consider the advisability of raising their feeders. The prices at which such cattle are selling will surely give a good margin on their production on the farms, and in addition to the satisfaction of having home-grown feeders when they are needed to consume the hay and grain of the farm, the farmer can have high class cows and a good pure bred bull and so raise a better class of steers than he usually gets on the market.

For a long time there was a disposition in many quarters to disbelieve the claim that there was a shortage in the supply of cattle, but it is now recognized as a condition rather than a theory. This shortage is a fact that must be reckoned with for some years to come. Intelligent and energetic cattlemen are not inquiring how to get rid of it, but how to profit by it. Evidently the only way to materially change present conditions is to raise more cattle, and since the range industry was so restricted by the encroachment of the homesteader and the orders of government officials, the larger part of any material increase in cattle will have it to be made on the farms.

It would seem, therefore, that the grain farmer has every inducement to add to his industries that of cattle breeding. There is a reasonable expectation of reward in doing so, and as a direct though incidental part of the addition to his farm industries, the farm itself will become more productive and hence more valuable. During the months of this year the live stock papers of the great feeder markets have contained complaints from farmers that feeders were too high, but the farmer who does not wish to pay prevailing prices will have to raise his own steers. To do this no large additional expenditure to his present farm equipment will be necessary. A bunch of good grade cows and an extra good beef bull are the chief items of expense. In changing a distinctive grain farm to one including cattle breeding, more grass land will be necessary, but this in itself will be a distinct benefit to the farm.

Repeated and insistent demands from farmers at stock yard markets for cows and heifers for breeding purposes indicate a determination to grow more cattle on the farms, and farm conditions would be better if more cattle were bred and grown. For this purpose Short-Horns have always been well adapted.—B. O. Cowan, Los Angeles County, Cal.



Army-Navy Auction Bargains

SADDLES	$3.00 up	NEW UNIFORMS	$1.50 up
Shoes, pr.	1.85 "	Army Revolvers	1.65 "
TEAM HARNESS	21.85 "	" HAVERSACKS	.10 "
Leggins, Pair....	.18 "	" Swords.....	.35 "
TENTS.....	3.85 "	" 7 Shot Carbines	2.95 "
Colts Cal. 45, Revolvers....	$7.50 up.	Cartridges	1c ea.
Sp'field Mauser Sp't'g Rifle	11.85	Cartridges	2c ea.
Army Breech Loading Rifle	.98c.	Cartridges	2c ea.

420 Large page CYCLOPEDIA CATALOGUE. Over 5,000 illustrations. BEST BOOK PUBLISHED ON WAR WEAPONS mailed 25c. Estb'd 50 years.

Francis Bannerman, 501 Broadway, New York City

GREW 108 BUSHELS PER ACRE.

Elbert Cast, of Chickasha, Okla., 12 years, raised 108 bushels of corn to the acre, won the state pride, a trip given by the United States Department of Agriculture, for the best acre of corn. Elbert Cast was one of the big party of boy and girl prize winners that visited Washington early in December. Their winnings were made in "corn clubs," "canning clubs," "pig clubs" and so on, and constituted records few grown people have equalled.

PUBLIC AUCTION — FEBRUARY 13. PERCHERONS AND POLLED DURHAM CATTLE.

One imported stallion; black; weight 2010; two, two year old stallions; black; weight 1900 and 1820; eight brood mares; bred; weight 1600 to 2150.

Ten cows and three bulls. All registered stock. Send for catalog.

PETER ANDERSON, Piper City, Ill.

GOOD SHORTHORNS.

Pratical cattle for both beef and milk. Just the kind the farms of the country need, and with breeding and conformation to make show cattle if you want them. I show my breeding stock successfully, but no stock is ever crowded enough to hurt it.

Pleased to show stock, quote prices and answer inquiries at all times.

C. H. White, Burlington, Kas.

HOG DISEASE LEADING PROBLEM THERE.

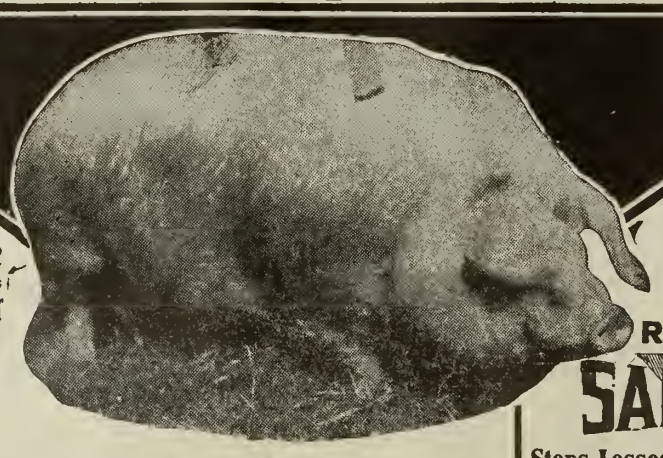
To The American Breeder:—The leading question or problem among the farmers and swine breeders of this county is, it seems to me, that of reducing the loss of swine by hog cholera or swine plague to the lowest minimum. This loss occurs regularly about every two years. Farmers lose all the way from $50 in value to $1,500. Some have practically quit the business. According to the last available state report the county sustained a loss in 1908 of 4,728 hogs; in 1909, 5,081 hogs; in 1911, the loss must have been at least as much again. The county is not a large county; has as per census report, 2,815 farms. Value of animal products slaughtered and sold, 1909, $1,032,245. Other conditions for the growing swine are considered almost ideal. A larger number of farms have alfalfa; forage and pasture crops do well and usually grain.

I have sustained loss but once, but that was once too much, even though the loss was comparatively light. Not more than 50 shoats, pigs or hogs are kept on the place at one time. I would like to run up to 100, but for the risk of such possible loss.

Now I would like to know, and if of general interest, can not the breeders take the matter up and tell us what are the most progressive states, communities, localities are doing. Where and how has the "serum vaccination" plan worked out best. How is the added plan of quarantine and inspect plan worked out most successfully to limit or check the spread of infection. What actual medicines or conditions locally that have been the effective agency of distribution or spread of the plague. Have the farmers or breeders in such counties cooperated by association or otherwise to consider such problem. If so, the result. Are there any county inspectors. If so, give manner or method of working. Why has the vaccination plan failed in such a large per cent? What state experiment stations have most advanced along such lines of work and the plan of work.

I trust breeders will give the subject careful consideration as the raising of swine is necessary to any degree of successful farming with many of us.—T. N. Athey, Kay County, Oklahoma.

Protect YOUR Hogs From Disease!



"This is a photo of my aged sow, winner of the first prize at the Minnesota State Fair, 1913. When I arrived home from the fair, my herd was sick with cholera. I started to feed 'SAL-VET' regularly, and was fortunate enough to save six of my best aged sows, among them, my two first-prize winners, also some of my young sows, and my herd boar, 'Famous Lad' besides a few other boars. 'SAL VET' is all you claim for it, and I will not be without it."—Louis Anderson, Prop. Greekview Farm Herd O. I. C.'s, R. 1, Jackson, Minn.

"SHOW ME" 1st Prize Winner Minnesota State Fair 1913 Owned by Louis Anderson

I'll Help You Prevent Your Losses
I'll Get Rid of the Worms in Your Stock
I'll Prove It Sixty Days Before You Pay

NOW is The Time for you to get rid of the deadly stomach and free intestinal worms—the pests that sap the strength and vitality of your farm animals, making them easy victims of cholera and other diseases.

Read these Letters. They prove that "a stitch in time saves nine."

"A lot of hogs died in this country from swine plague or cholera. Some of them were within three miles of me but I have been feeding Sal-Vet and have not lost a single hog."—D. A. ROSS. Kingman, Kan., Breeder of Pure Bred Poland Chinas.

"As the hog cholera is prevalent all through this section, I have been feeding Sal-Vet to my hogs. Since then, I never saw them in better condition, in spite of the fact that all around me the cholera is carrying them off by the hundreds."—W. J. BROOKS, Digge, Va.

Hogs *free from worms* are best protected against Cholera and Swine Plague and most apt to recover when attacked. Read the letters in the next column. ***Worms are your greatest enemies***—worse than cholera—they are everlastingly stealing your stock profits—weakening your farm animals and keeping them from putting on flesh. And worst of all in times like this when cholera breaks out in your neighborhood, you may lose hundreds of dollars in a few days just because your animals have been robbed of their fighting strength and vitality by *worms*.

SAL-VET

The Great Worm Destroyer and Conditioner

will drive out these pests quick. I'll prove it on your own farm, with the money in *your pocket*. Worms can't live where Sal-Vet is used. It is the best kind of cholera insurance you can find. It will put every animal on your place in a thrifty condition. They'll gain faster—grow into money quicker, make you more profit. Read my offer.

Don't Send Any Money—Just Send This Coupon



S. R. FEIL Pres.

Sidney R. Feil, Pres., The S. R. Feil Co., Cleveland, O.
Ship me enough "Sal-Vet" to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days and at that time pay for it if it does what you claim. If it does not, you are to cancel the charge.
Name.....
P. O.....
Shipping Sta.....State.....
Number of Sheep.....
Hogs.....
Cattle.....
Horses.....
AB -5-14

I'll Feed Your Stock 60 Days Before You Pay

If you will fill out the coupon below—tell me how many head of stock you have—mail it to me, I will ship you enough Sal-Vet to last them 60 days. You simply pay the freight charge when it arrives. Let your stock run to it freely according to directions and at the end of 60 days report results. If Sal-Vet does not do what I claim, I'll cancel the charge. You won't owe me a cent.

SIDNEY R. FEIL, President

THE S. R. FEIL COMPANY, Manufacturing Chemists
(149) Dept. AB Cleveland, Ohio

Read How SAL-VET Stops Losses Among Farm Animals

"Hog cholera has been all around me and I have not had one sick hog. I cannot praise "Sal-Vet" too highly, and I do not hesitate to recommend it to all hog raisers."
A. O. Kellogg, Troy Grove, Ill.

"Last year I lost all of my hogs from cholera. This fall and winter I have been feeding "Sal-Vet and lost none."
Cleveland Rice, Scott, Ohio.

"My neighbors, who have NOT fed "Sal-Vet" have all kinds of trouble with their hogs—many of them getting lame and stiff, and would not eat. I think "Sal-Vet" is great stuff."
Harry E. Townley, Cambridge Springs, Pa.

"I have fed "Sal-Vet" to my sick hogs and found it very beneficial. Before your remedy arrived nine of my hogs died. Since feeding the preparation I lost but one more and the balance are in fine hearty condition."
(Signed) Joseph Walter, Route No. 2, Box 33, A, Freeburg, Ill.

"I have just finished feeding the 200 pound barrel of "Sal-Vet." My hogs are the only ones left in this immediate locality. I haven't lost one."
James F. Martin, Little York, Ill.

"I did not for a minute expect such results as I obtained from your SAL-VET. It expelled more worms from my hogs than it would take to fill the keg it came in. I will order more soon for it is a great preparation."
Geo. B. Coffinbarger, Shepherdstown, W. Va.

"When I received your SAL-VET my hogs were very unthrifty—but they did not stay that way long after feeding SAL-VET. I never had pigs do so well. They were soon in top condition. My horses also improved on it fine. It sure does get rid of the worms. Please send me another barrel at once.
D. P. Copp, Carrol, Iowa.

"I had a lot of sick hogs and I lost five of them. I began feeding them SAL-VET, my losses stopped and the hogs soon got into a fine, healthy condition.
"SAL-VET did the same for my sheep and horses and several of my neighbors have had the same experience with it."
V. P. Underwood, Roachdale, Ind.

MR. SIDNEY R. FEIL
Pres. The S. R. Feil Co.

is a practical Pharmacist, registered under the Ohio State Pharmacy Law, a graduate of the Cleveland School of Pharmacy and of the National Institute of Pharmacy. He has been engaged in laboratory work for more than twenty-five years and was formerly assistant to Dr. Natban Rosewater, former Chemist of the Ohio State Dairy and Food Commission. Try genuine SAL-VET 60 days before you pay. Take no substitute.

PRICES 40 lbs., $2.25, 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12
Special discount for large quantities.
No order filled for less than 40 lbs. on 60 days offer. Never sold in bulk, only in Trade-Marked "Sal-Vet" Packages. 60 day trial shipments are based on 1 lb. of Sal-Vet for each hog or sheep and 4 lbs. for each horse or head of cattle as near as we can come without breaking regular packages.

BIG WASTE OF FERTILIZING MATERIAL.

According to the United States Department of Agriculture, 75 per cent of a highly valuable fertilizing material in the form of tankage and blood from the country slaughter of food animals is being wasted throughout the country districts. In addition $22,000,000 worth of ammonia, from ammonium sulphate, another valuable fertilizing material could be made, is annually wasted by the practice of making coke in the beehive type of oven.

Tankage, a product of slaughter houses, consisting of such waste material as bones, horns, hoofs, hair etc., contains a large percentage of nitrogen and other products used in commercial fertilizer and in the larger packing houses is carefully saved. In country killing, however, only 25 per cent of the tankage and blood are saved for fertilizer. From the figures of the Bureau of Animal Industry, representing the total slaughter of cattle, calves, swine and sheep in the United States in 1912, it has been calculated that if all the materials rendered available by this slaughter had been saved and converted into tankage and dried blood, they would have produced 222,535 tons of tankage and 79,794 tons of dried blood.

The introduction of a co-operative system among American farmers undoubtedly would result in an increased utilization of blood and tankage for fertilizing purposes. In Denmark, country killing is being practiced on a co-operative basis in small country abattoirs, and the blood is carefully preserved.

NEW BERKSHIRE RECORD VOLUME.

Volume 43 of the American Berkshire Record is just out. This record contains the pedigrees of 5,000 animals, beginning with 175001 and ending with 180000. The association in paging this volume has adopted a new plan, the first two figures of the page number being 43, the number of the valume, while the right hand three figures of the page number correspond to the actual number of pages in the book up to that place. Applications for this volume should be addressed to Frank S. Springer, secretary American Berkshire Association, Springfield, Ill.

MORE WHEAT THAN EVER.

The greatest area of wheat on record for the United States was sown during the fall and early winter of 1913. According to the figures compiled by the United States Department of Agriculture, 36,506,000 acres are now growing winter wheat, which is an increase of more than 4,000,000 over the acreage reported a year ago.

In many sections some wheat was sown principally with a view of making winter feed in case of an open season, such as has been enjoyed. Wheat pasture has, in fact, been the salvation of many sections where last summer's dry weather cut short both grain and forage crops, allowing, however, for as much pasture wheat as is likely to be plowed up, the probabilities are that next spring will see us with nearly 3,000,000 acres more than the year before.

The condition of the crops at present is among the highest ever reported for this time of year, the average of wheat being given as 97.2 per cent for the first of last month. In 1902 the condition average at the same season was about as good, but the average December condition for

ten years following 1902 is eight points lower. Kansas shows the greatest increase in wheat acreage over last year; the increase of that state being one and one quarter million acres.

Following are the wheat acreage figures for this winter and last winter for the leading winter wheat states:

	Acres in 1913.	Acres in 1912.
Kansas.	8,335,000	7,080,000
Nebraska.	3,253,999	3,188,000
Oklahoma.	2,541,000	1,761,000
Missouri.	2,585,000	2,350,000
Illinois.	2,629,000	2,290,000
Indiana.	2,518,000	2,214,000
Ohio.	2,118,000	1,972,000
Texas.	1,139,000	758,000
Pennsylvania.	1,339,000	1,326,000
Michigan.	900,000	870,000

You'll thoroughly enjoy the delights of a Winter spent at San Antonio, Galveston, Corpus Christi or any one of a dozen other attractive Texas resorts.

Sunshiny weather, surf bathing, hunting, fishing, motoring, golf or tennis—splendid hotels and accommodations.

THE MK AND T
MISSOURI, KANSAS & TEXAS RAILWAY.

The special round trip Winter Tourist fares make the journey possible at small expense. Long limit tickets—June 1, 1914; stop-overs and diverse routes.

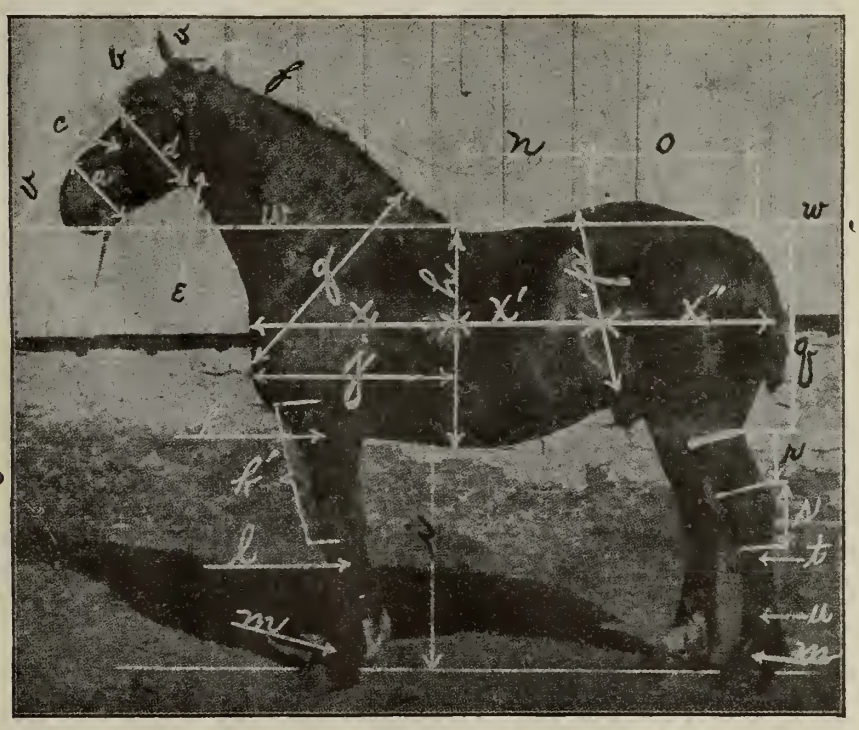
For fares, time of trains or any desired information, see the nearest Katy agent, or write—
B. R. MORTON, Division Pass. Agent,
805 Walnut St., Kansas City, Mo.

The Ideal Conformation and Type of Horses.

By Prof. R. C. Obrecht.

After making a careful study of a great many horses found upon farms, and thousands upon the market, the writer has been forcibly impressed with the fact that most people do not thoroughly understand what is wanted in the ideal conformation and type of the various classes of horses. There are some points which are fundamental and common to all classes of horses in order to obtain the ideal in any type, no matter whether it be a draft horse, wagon horse, coach horse, saddle horse or roadster.

The illustration in figure 1 shows an animal which has about as near an ideal conformation as one generally finds. In selecting a horse of any kind one should always try to secure an animal that has a long, oblique shoulder, as shown at (g), the chest



(Figure 1.)

should be capacious and in draft horses fully as deep at (h) as the distance from the under line to the ground (i), but in coach horses the distance at (i) should slightly exceed that at (h); the chest should be of good length at (j) and with a good width from elbow to elbow; the floor of the chest should come well down between the fore legs and extend forward, making a prominent breast.

All horses should have a short back and loin (n) which should be slightly shorter than the distance from the loin to the end of the croup (o). The hind flank should be well let down and

when in good condition the distance at (p) should be almost as deep as the rest of the body. In draft horses the thighs and quarters should be heavily muscled, extending well toward the hock, as seen at (q), and the gaskin or distance at (r) should be short, while with the light horses a greater length of gaskin is desired and not so much depth at (q). All horses should have a good depth of hock at (s) and the upper part should be much broader than the lower part. The hind cannon at (t) should be broad and, as viewed from the side, equal to that at (u). When horses stand naturally with the hind feet even, the hind cannon should be perpendicular, and if the distance (o) is as great as it should be, a straight edge placed at the back side of the rear cannon will strike the point of the buttock. The body should be long from the breast to the point of the buttock, both (x) and (x") should be longer than (x') and the entire length should be in correct proportion to (h) the depth of the body. The forearm at (k) should be heavily muscled and of greater length (k') than the distance from the knee to the ground. The tendon should stand well back from the cannon bone, giving a good width as viewed from the side point (1); the pasterns (m) should be obliquely set and of good length, about 45 degrees is considered

Southern Colorado

Is today offering greater opportunities for the farmer, the cattleman, the horseman and the breeder than any other section of the entire West. We will be pleased to tell you of them.

Write for data to

The Information Dept.,

Pueblo Daily Chieftain,

The oldest and best known daily in Colorado.

Pueblo, Colorado

You can make big money farming in Arkansas

Same Latitude—Same Crops

THE soil is newer, richer and much lower in price. A splendid climate makes it possible to produce bountiful crops of nearly every variety known to man. It will pay you to investigate.

We have just published six illustrated folders on Arkansas. Send for the one that interests you.

1. Central Arkansas
2. Northeastern Arkansas
3. Southeastern Arkansas
4. Southwestern Arkansas
5. White River Country
6. Arkansas Valley

The way there is via Memphis and the

MISSOURI PACIFIC IRON MOUNTAIN

Iron Mountain Route

Splendidly equipped trains

Mr. J. N. Anderson, Immigration Agent,
Iron Mountain, St. Louis
Please send me Arkansas Land Folder
No.——— Name———
Address———

ALFALFA AS A MONEY MAKER

Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Building, Kansas City, Mo.

TO TRADE

Good, level, well located farm, all under cultivation, for Percheron stallions, mares or good jacks.
Lane Realty Co., Dighton, Kans.

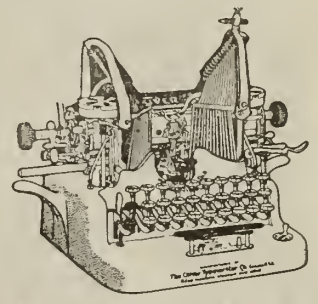
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POSITION WANTED

By a graduate of the Graham Scientific Breeding School. Have handled stallions the past ten years; have handled the capsule system two years. References furnished. **C. E. HODGDEN, Galesburg, Neosho County, Kans.**

BREEDING STOCK and STOCK FARM

For Sale—560-acre stock farm, the best in the county. Also 3 jacks, 1 saddle stallion, 1 Coach stallion and 2 Belgian stallions. This place and stock is for sale and will be priced right for quick sale.

ED. JOY, GOLDEN CITY, MO.

POSITION WANTED.

Have handled horses since I was fifteen, specializing the last eight years in their training and education. I am now studying their breeding and care and within a month will begin a course in the Graham Scientific Breeding School. I want permanent work with a horse breeding and raising establishment. Will be glad to give references.

ELLIOTT S. HUMPHREY,

P. O. Box 64, Buckner, Mo.

GOING TO QUIT BUSINESS.

Four big stallions and jacks. One imp. Black Percheron; 7 years old; extra heavy bone; straight legs; best of feet; weight 1900. Tried breeder; colts to show. One grade black Percheron.

Two big registered black Mammoth jacks with white points; 15½ hands high, standard; extra large head and ear; heavy bone; straight legs; big feet; good workers on mares or jennets. Plenty of colts to show.

B. H. BAGLEY, Zenith, Stafford County, Kans. (On Kinsley branch Santa Fe, 33 miles west of Hutchinson, Kans.)

BARGAINS FOR SALE.

Three stallions; two jacks and our big feed and sales barn, including our breeding barn, stock pens, sheds and wagon yard; all included covers two acres of land, 200 feet from depot; 50 feet from railway loading pens. Our breeding stock as follows, to-wit:

One German Coach horse, imported, weight 1,400; two Denmark saddle horses, Rex L. 2229, sired by Rex McDonald; Captain Denmark 3199, sired by King D. 1527. Two black Tennessee jacks, 15 hands, 4 and 9 years old; heavy bone; quick to serve and sure breeders. Right in every way. A paying business. Breed 350 to 400 mares each year; books and colts to show. Will sell all or will sell stock and lease barn and property to suit purchaser. Stock free from blemish; safe and sound, and sure breeders. Priced to sell. We mean business.

SHOWMAN & McCLAREN, Doniphan, Ripley County, Mo.

CLOSING OUT AS I HAVE OTHER BUSINESS.

One registered Belgian stallion, 12 years old; has weighed over 2,000.

One registered saddle stallion; weight 1,260.

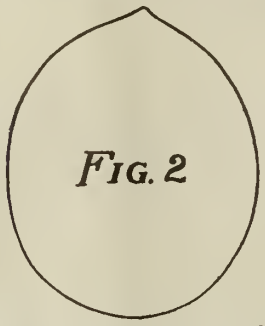
One 15-hand jack; extra heavy bone and feet and ears; with plenty of length and width. The jack is 12 years old and has never been crowded; is the surest jack I ever handled; good worker any kind of weather on mares; will work on jennets with mare for teaser.

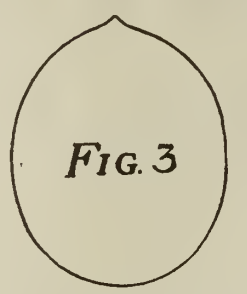
Also one yearling jack, coming two, and three jennets; two jennets eight years old; one has raised four jacks, the other, three jacks and one jennet; the other jennet is three years old; one of these jennets will foal early, the other due in fall. All black with white points.

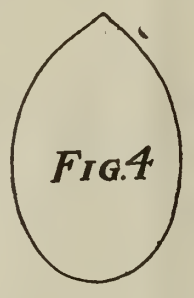
The above stock are all good breeders and sure. No trades.

O. T. KARR, Quitman, Mo.

best for the front ones, while the hind ones may be set a trifle more erect. When viewed from the side the front leg should be perpendicular from the elbow joint to the fetlock, being


FIG. 2


FIG. 3


FIG. 4

neither buck kneed nor calf kneed.

The neck at (f) should be of good length and in porportion to the rest of the body; and with a good depth at (g) join the shoulder smoothly, leaving a nice place for the collar, it

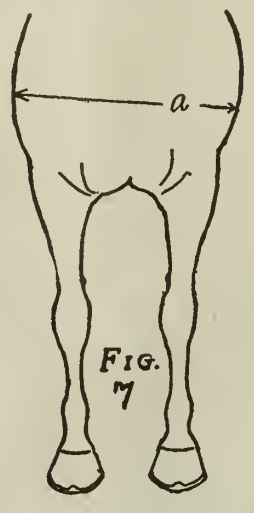


FIG. 7

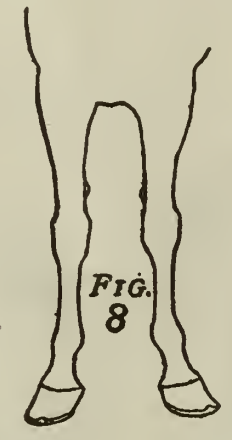

FIG. 8


FIG. 9

should also taper toward the head and be free from coarseness at throat (e). The head should be broad at (d), tapering toward the muzzle (a), which should be refined but not delicate. The forehead (b) should be broad and deep, which is an indication of brain development and intelligence. The face (c) should be refined and possess quality.

The neck is usually carried at an angle of about 90 degrees with (g),



FIG. 10

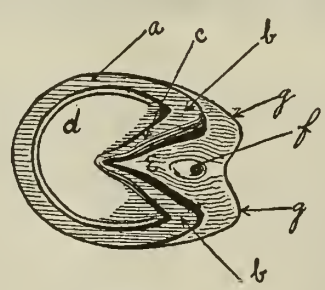


FIG. 11

which gives a good poise to the head, carrying the chin on about a level with the lowest point of the back as seen (w). However, different classes of horses vary in this respect, depending upon their education and manner of carrying the head. The natural face line of (v) is about 45 degrees, which should be somewhere nearly parallel with the line (g).

Draft horses possess more depth and thickness of body than the other classes. If a cross section were made of a typical drafter at (h) the outline would resemble figure 2, while a cross section of a typical coach horse made at the same point would resemble Fig. 3, and that of a road horse and saddle horse Fig. 4.

When viewed from the rear, the hind cannons should stand perpendicular and parallel with each other, so that if a plumb line were dropped

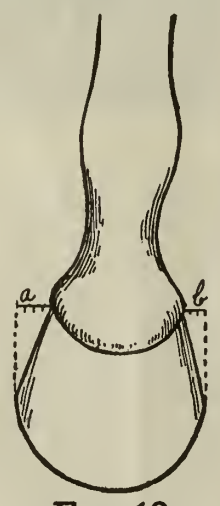
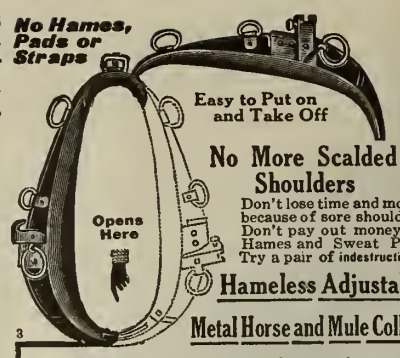


FIG. 12

from the point of the buttock, as in Fig. 5, it would bisect the hock, cannon, fetlock and strike the center of the heel. The hind toes should point straight forward, turning neither in nor out, though there is but little objection against a conformation that is slightly too wide. The thighs in draft and carriage horses should be as broad at (b) as the horse is through the hips at (a) in Fig. 5. The quarters (c) should be heavily muscled, with a good depth from (c) to (d), and comparatively short from (c) to hocks in draft horses. Fig. 6 shows a common conformation which should be discriminated against; the hips are too wide and the thighs are lacking in breadth; the quarters are deficient in muscling and the crotch is split too high; the hocks are turned in and are set closer together than the fetlocks, and the toes are set very wide apart.

The breast through the point of the shoulders at (a) in Fig. 7 should be nearly as wide as the thighs at (b) in Fig. 5. The legs should set well under the shoulders and stand parallel to each other as viewed from the front, the toes pointing straight forward. Figs. 8 and 9 show common defects which should be discriminated against,

No Hames, Pads or Straps



No More Scalded Shoulders

Don't lose time and money because of sore shoulders. Don't pay out money for Hames and Sweat Pads. Try a pair of indestructible

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ABSORBINE, JR., the antiseptic liniment for mankind. For **Synovitis, Strains, Gouty** or **Rheumatic deposits, Swollen, Painful Varicose Veins.** Will tell you more if you write. $1 and $2 per bottle at dealers or delivered. Manufactured only by

W. F. YOUNG, P. D. F., 388 Temple St., Springfield, Mass.

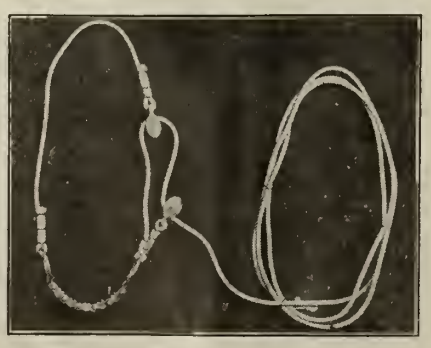


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TWO WHIPS YOU CANNOT BEAT

No. 10—Heavy, high-test rawhide center, from butt to tip; rubber lined; double waterproof covered, 6½ feet long. Price..$1.00

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"CONQUEROR" STALLION BRIDLE

Guaranteed to Hold Any Stallion or Jack.

This bridle is made of especially selected material. Can be adjusted to fit any size head and for either hard or tender mouths. Just the thing for breaking runaways or kickers. Price, each.....$2.50

CAUTION:—Never tie an animal with this bridle. If he got to pulling he could split his head.

Every One of the Above Articles Sold On a "Money Back" Guarantee. Cash Must Accompany Your Order. We Prepay Shipping Charges.

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as they are conducive to poor action; Fig. 8 is spoken of as splay footed or nigger heeled and Fig. 9 as pigeon toed. A splay footed horses always wings in and may interfere, while one with pigeon toes wings out—sometimes spoken of as paddling. While it is desirable that draft horses should have a wide chest at (a) Fig. 7, their front legs should not set on the outside of their body, as the legs of a bulldog. Such a conformation is predisposed to rolling.

The feet should be of good size, and as in Fig. 12, spreading from the coronet with a convex sole; the outside at (a) spreading a little more than the inside at (b). The heel should be wide and high, giving room for a large frog at (e) in Fig. 11. The height of the heel at (a) Fig. 10, should be one-half the length of the toe (b). The wall of the foot (a) Fig. 11 should be heavy, the bars (c) strong, and the heel should have greater width at (b-b) than at (g-g). The sole of the foot is shown at (d) Fig. 11, and the cleft of the frog at (f). Fig. 10 shows how one may determine when the foot is properly joined to the pastern and cannon. A plumb line dropped from the elbow joint should bisect the knee, cannon, fetlock and strike the heel of the foot. The line of the toe should bear out the same direction as that of the pastern. Flat feet with low contracted heels should always be discriminated against.

It is impossible in this brief article to touch upon all of the points of conformation and the method of examining for soundness, but if the readers of the American Breeder will study the above figures and compare their own horses with them, in fact every horse they see, they will soon be able to acquire an eye for correct proportions and will improve their ability as judges of horses, which in time will result in very much better class of horses being bred. When the correct conformation of a horse is once well established in the mind, the matter of type will be more readily understood.

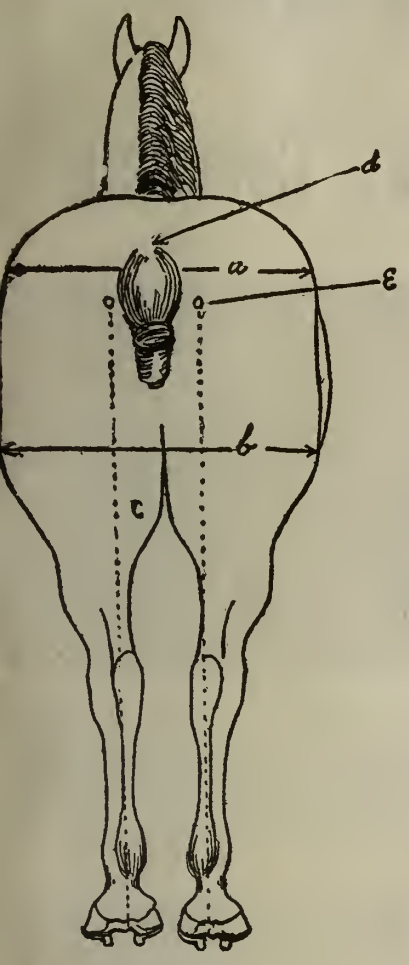


FIG. 5

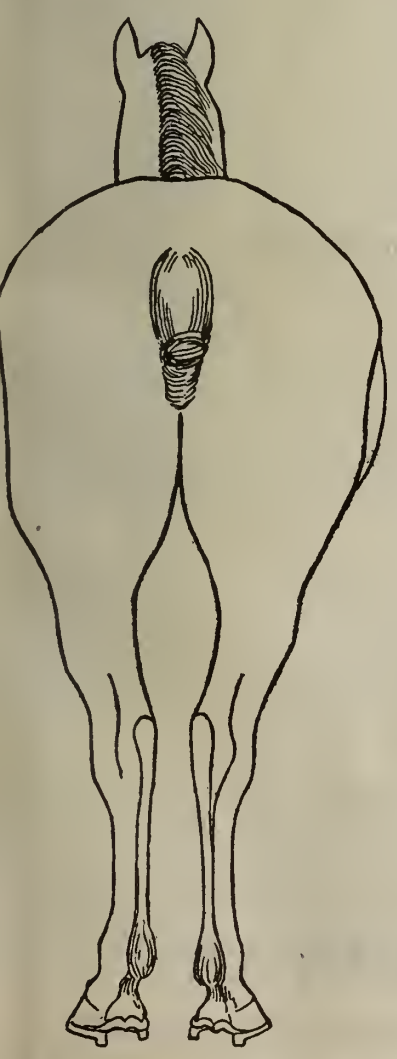


FIG. 6

FIELD NOTES

(Continued from page 25.)

head and neck set on oblique shoulders, very strong back and loin and deep rib. We are having our usual January trade, the demand being for better horses, and in our opinion the outlook for the draft horse business of the country was never in better condition than at this time.

Our 1914 catalogue will be mailed to any of your readers interested in strictly first-class draft horses."

H. Lefebure & Sons of Fairfax, Ia., one of the leading importers and breeders of Belgian draft horses, write that business has been very good, even better than any preceding year. "Never did we ever sell as many during November and December," they say. Among our December sales were a stallion and two mares to Glendale Stock Farm, Aspen, Colo.; one stallion and a mare to Albert Rogge, Bloomer, Wis.; a stallion and several mares to H. S. Hale, Dixville Notch, N. H.; two stallions to L. Hunter, Hartstown, Pa.; a Percheron and a Belgian to Ed Hagerty, Boscobel, Wis.; a 2,200 pound 3-year-old to A. A. Coulter, Conrad, Ia.; a Percheron to August Boos, Griswold, Ia.; a 2,150 pound stallion to Christ Serup, Iowa City, Ia.; a Belgian to J. L. Schneider, Elkader, Ia. Even though our last importation contained 100 head, we have found it necessary to arrange for a March importation.

A. F. Hughes of Sherman, Ill., writes as follows: "I might say that Sunshine Prince (whose cut appeared in my ad., last issue), is the result of a three years' search for a horse of this breed with size, speed, beauty, action, conformation and disposition, all of which I think necessary for a perfect horse, and as like begets like it is a necessity in the sire. He was bought to establish foundation stock and has more than met my expectations, and I will pass him on to some one needing one of this kind and cannot too highly recommend him. As a foal getter, he has been almost perfect, as in three years he has failed to put but one of his mares in foal, all with the natural service."

S. J. Molby, Agricola, Kans., is advertising his registered standard bred stallion, Leslie McGregor, for sale in this issue. He also has a Shire stallion to trade. Lood up the ad.

R. H. Montgomery of Rich Hill, Mo., is offering two registered stallions for sale in this issue, one a Percheron, the other a Standard bred.

A. F. Hughes, Sherman, Ill., has two draft mares to trade for Percheron stud or jack.

Elliott S. Humphrey of Buckner, Mo., would like to get a position with a horse breeding and raising establishment. In less than a month he will be in shape to handle the scientific methods and wants to get permanently located. His ad appears in this issue.

Peter J. Eggers of Denison, Iowa, starts his Percheron and Belgian ad in this issue. He has 30 head for sale at the present time and will sell at bargain prices. Do not fail to read the ad if in the market.

M. A. Richburg of Winnsboro, Texas, is advertising Highball 2nd for sale or trade for jennets or a good young jack. Read his ad in this issue.

Geo. H. Simpson of Wheaton, Ill., has Shetland stallions to lease for season of 1914; he also has mares, colts and geldings for sale. Anyone in the market for Shetlands should not fail to look this ad up.

S. S. Langford, Craig, Nebr., has four Percheron stallions advertised for sale in this issue from $300 to $700. Look up the ad if interested.

S. M. Cooper of Riovista, Texas., is advertising a 160-acre farm in Haskell County, Texas, to trade for cattle, mules or Jersey cows.

I. T. Vannorsdel, Kingsley, Iowa, is offering Percheron stallions and mares for sale at low prices as he wishes to reduce his stock. Look up the ad in this issue.

Dr. D. H. Bibens, of Larned, Kans., is advertising a French draft stallion and a jack for sale in this issue. He also has Council Chimes P. in service See his ad and then write him for further information.

Clem S. Gude of Hamburg, Iowa, is advertising an imported Percheron stallion to trade for a good jennet jack. He also has two jacks and one German Coach colt for sale. His ad is in this issue.

The Lakeside Remedy Company, 5510 Calumet Avenue, Chicago, Ill., advertise in this issue their remedy known as "Clear Eye." We ask all our readers to always mention the American Breeder when addressing this company.

The Marshall County Jack & Jennet Association holds its annual sale of jacks and jennets at Lewisburg, Tenn., on February 21. This sale will be as usual under the management of J. J. Murray, Lewisburg, Tenn., and applications for catalogues should be made to him at once.

E. F. Bickmann, Pender, Neb., is advertising his Belgian stallion for sale on account of his fillies.

The Detroit Engine Works, 203 Bellevue, Detroit, Mich., is one of the oldest firms in the manufacture of gasoline engines for real farm service. These engines are not merely made to sell; they are made to do the work and keep in repair and come up to the mechanical standard of first class machinists. We have no hesitancy in recommending the engines put out by this company to any of our readers.

The Up-to-Date Manufacturing Co., 990 10th St., Terre Haute, Ind., is one of the companies that supply practically any need in the way of fencing. They have everything from ornamental iron fence to the most durable fencing for field and pasture. Mention the American Breeder when writing for catalogue.

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Made from Photographs

If you have a good photograph of your stallion, jack or any other animal, or of your house, barn or yourself, we can make you a cut from it, any size you want. **$2 pays for such a cut** 3x3½ inches, or smaller, if photo is clear. Larger cuts in proportion.

Ready Made Cuts at Lower Prices

We keep on hands the best line of stallion and jack cuts to be found in the country—a new line true to life, made from original photographs. Send for sample sheet and subscribers' prices.

N. B.—We do not do any printing. We simply furnish the cuts.

GRAHAM PUBLISHING CO.
225 WEST TWELFTH STREET, KANSAS CITY, MO.

Jack Sores Cured
By Using Jack Sorine. Sold With a Cash Guarantee.

O. P. WILSON SERUM CO., Kansas City, Mo.
Enclosed find my check for $5 for a package of your "Jacksorine" for jack sores. This is for a neighbor and shows on its face that your salve is doing my old jack's leg some good.
June 5, 1913. W. H. HAYS, Bloomfield, Ky.

We guarantee Jack Sorine to cure any sore on the legs of a jack or stallion, no matter how long it has been sore or what caused it. You know we have a good, reliable remedy or we could not guarantee it to cure all sores on the legs of stallions and jacks, without any restrictions. It is put up in a substantial box and sent promptly by mail. It is a paste and applied with a small brush.

Send money by bank draft or P. O. money order. Price $5.00.
O. P. Wilson & Co., 3754 Wayne Avenue, Kansas City, Mo.



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Guaranteed to Cure and Prevent Colts and Horses in same stable with sick ones from having Distemper, Influenza, Epizootic, Pink eye, Shipping Fever, Cataarhal Fever, Coughs, Colds and all Diseases of the Horse affecting the nose and throat.

A powerful germicide given internally alone will do the work, and that is found in FRAVEL'S DISTEMPER CURE.

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CLEAR EYE
For All Diseases of Horses' Eyes

Latest scientific remedy. It has cured thousands of bad cases. Satisfaction guaranteed.

Let us tell you all about it. Send us your address for our two compact **Veterinary Booklets,** containing all the most useful information a horseman should know. We wish you to know all about our complete line of **twenty-four remedies** covering all the needs of a horse. Satisfaction guaranteed or money refunded.

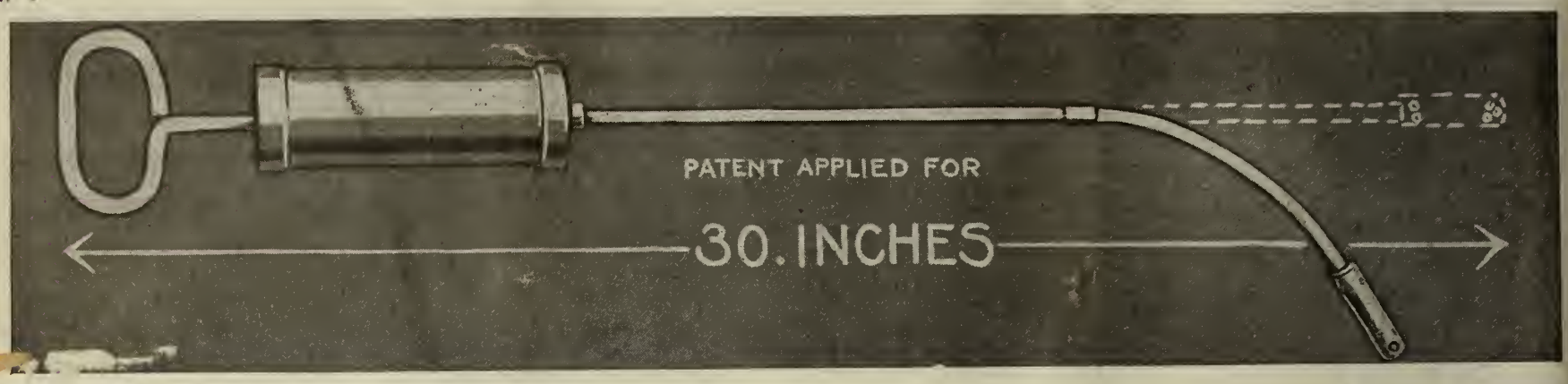
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Reliable Breeding Appliances of All Kinds

Pointed Breeding Capsules

We have the only capsules made especially for horse breeding. Some capsules do not dissolve, leaving a foreign substance in the uterus which will prevent conception. Other capsules are too flimsy to use for this purpose. You cannot make any mistake by buying capsules from us as we only have one kind. We have them boxed with 100 in each box. The box is tight so they will be clean. These capsules are properly baked and all bacteria killed before they are mailed. Always keep the lid on the box when not in use.

Price per box (100), $1.50.

Bulb Impregnator

This is the best bulb impregnator on the market. Some dealers sell for $5 and $6.

Price, $3.00.

Veterinary Thermometers

This thermometer is recognized and used by the leading veterinarians for taking the temperature of animals. It has a metal case which insures it against breaking and will last a life-time. It has a small chain with pin in it that may be fastened to the vest pocket and carried with safety.

Price, $1.25.

Thermometer

Tested and used for keeping water at the right temperature.

Price, $1.00.

Microscopes

For use in testing the semen of stallions or jacks. Magnifies 500 times and is used by veterinarians and physicians. Price, $35.00. Boxed in fine case. These instruments are of great value in the breeding business. Through them you can see for yourself and show your mare owner the live spermatozoa of your sire.

Price, $4.00.

Curved Metal Impregnator

This instrument is sold by other dealers for from $5 to $6. It is nickel plated, about 22 inches long, with a glass tube in it.

Price, $4.00.

Breeders' Bags

Three sizes, small, medium and large. Stallions weighing 1,200 or 1,600 pounds usually require a medium size. These bags are guaranteed not to tear from any cause before March 1, 1914. If they do tear before that time return the top part with our stamp on it and 35 cents in cash and we will send you a new bag.

Price each, $1.00.

Directions for Ordering

Send money orders or draft as exchange is always charged on personal checks. Always name your express office as well as your post office address in order to insure prompt delivery.

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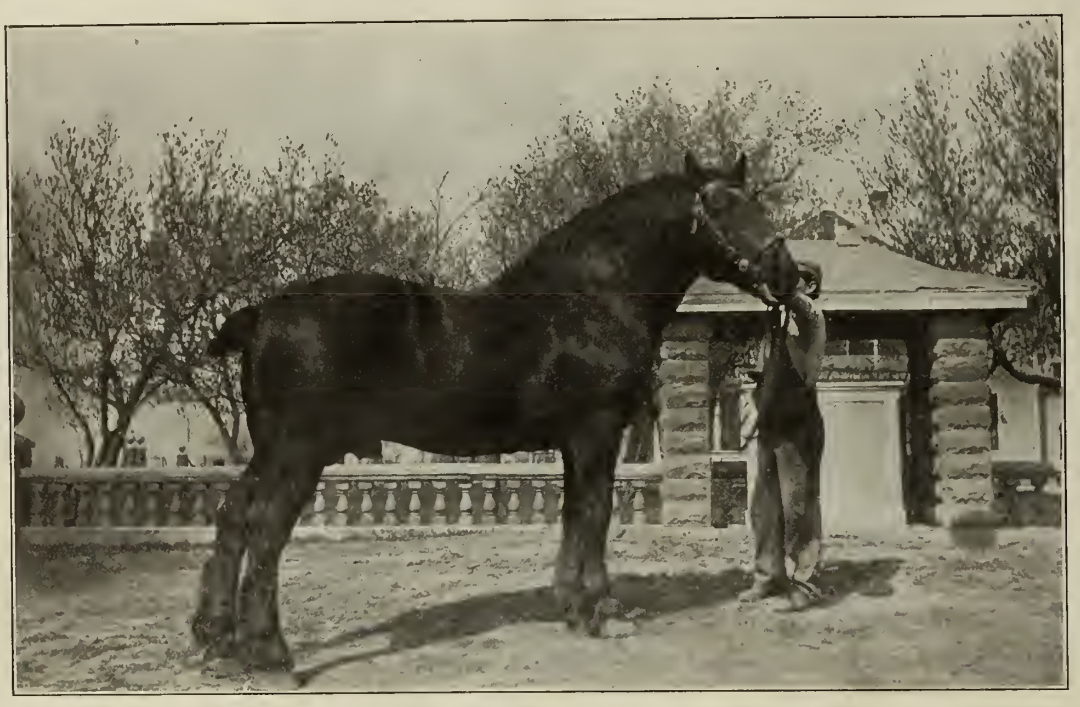
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J. C. ROBISON, Towanda, Kan.



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Co-operative Public Sale

BY THE NORTH MISSOURI PURE BRED LIVE STOCK ASSOCIATION

Registered Stallions and Mares, Jacks and Jennets

TRENTON, MO., MONDAY, MARCH 9, 1914

This offering is chosen from representative breeders and consists of the best bred lot to be had in North Missouri. At no auction will the farmer or breeder have a better opportunity to pick the best there is in draft breeds at his own price.

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FOR CATALOGUE WRITE **W. A. McVAY, Manager, Trenton, Mo.**

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All horses personally selected direct from the farmers, for good bone and of the best draft type and conformation. All will mature from a ton to 2,300-pound horses. I give a gilt edge guarantee good for two years. I am going to price them down very reasonable. Come and see them and be convinced.

W. H. Richards, :-: Emporia, Kas.

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54 Percheron Stallion

We have 54 as good stallions as can be found in any he from coming 2-year to 5-year-olds. We can sell a better and bi ger stallion for the money than any firm in the business. fully guarantee every stallion. Write us what you want.

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35 HOME-GROWN PERCHERON AND SHIRE STALLIONS AND MARES AND 50 REGISTERED JACKS AND JENNETS.

of the big boned, rugged kind, from 14 to 15½ hands high. This stock is all pasture raised and runs in the open. Will make a special low price on my imported Belgian herd horse, Champion 4980 (58644); sorrel; welght 2,200 pounds. His fillies are in the way. This horse is 6 years old and a sure breeder. All stock sold with breeding guarantee.

HENRY BECK, LITCHFIELD, NEBRASKA.

THE AMERICAN BREEDER

WITH WHICH IS COMBINED THE STALLION AND JACK NEWS

COPYRIGHT, 1914, BY GRAHAM PUBLISHING COMPANY.

VOLUME 7 KANSAS CITY, FEBRUARY 20, 1914. NUMBER 3.

PUBLICITY FOR THE DRAFTER

How the Horses Themselves, Your Own Methods, Your Satisfied Sons, Your Neighbors, the Banker, Teacher, Editor, Preacher and Your County Fair Can Boost a Public Benefit.

The draft horse, to be fully appreciated and understood, has to be considered under three important heads: as a source of farm power, as a commercial commodity, and as an agricultural institution. Publicity to fully meet the merits and needs of the draft horse in this broader sense must go farther than merely to find a buyer for this or that particular animal which one may have for sale. It must make the draft horse as an institution better understood; more highly thought of and more generally talked of. To do this and to do it right, his merits as a source of farm power and as a commercial commodity, must be played up and proven beyond any possibility of doubt. The publicity that brings this about must interest your neighbor to come to you and learn where he can get some good stock like your own. It must make your banker willing to carry some enterprising young farmer for enough money to get started with a few money-making draft mares of his own. It must teach the street corner talent the facts in the case, to the extent that when they get together to settle the future of the horse business, they do not talk against the best interests of the community off from which they make their living.

It must impress your local editor until you find him shortening his editorials on the "Free Trade" and the "Philippine Policy," cutting out his neighborhood gossip and boiling down his eulogies of popular citizens in order to get space enough to tell whose geldings, and what kind, brought the most money from the horse buyer; what kind of mares it took to raise the first prize mules Mr. So-and-So showed at Kansas City, and to give interesting and intelligible accounts of the neighborhood colt shows and of the draft horse exhibits at the county fairs.

It must appeal to the school teacher, and reach her or him in such shape that appropriate use can be made of it in the class room, and through its use the smaller sons and daughters be given a better idea of the nature and dignity of the farm's business, as well as of its opportunities.

It must commend the subject of its propaganda to the girls in the country until, in their confidence that it is the draft horse which in the long run buys the auto, they feel no slight at having to take an occasional buggy ride behind a team more marked for stability than for speed.

It should bring into the life of your son the profit in dollars, the excitement of competing and excelling, and the satisfaction of always seeing something better ahead, without which no real live, red-blooded boy stays contentedly on the farm, excepting from a strong sense of duty.

It must carry to your better half such assurance of the permanence of the business as will forestall all apprehension on her part when you find it necessary to take a big roll of yellow back bills and start out in search of a new stallion to head your herd of mares.

In fine, the arguments of this publicity must become so much a part of you that you live them every day of your life; that they will be reflected in the polish of the harness your road team wears; in the good conditioned coats of your mares and colts and the high quality of your stallion; in the soundness and integrity of your methods and in the business prosperity which almost certainly attends a wise, conservative and competent application of correct draft horse ideals and practices.

In many a community, at first, the whole neighborhood and the cook had to be convinced, but it surely came if the pioneer himself was able to start with good material, knew what he was doing and was possessed of that double distilled confidence that the course he was following was right.

It is, therefore, not a national draft horse propaganda that is needed in this connection, so much as a home campaign in every county, in every community, on every farm. Such live stock and agricultural papers of general circulation as are aware of actual farm conditions and have provided themselves with any editorial ability along that line, have all done something toward farm horse improvement in the direction of more weight and draftiness. In this way many arguments, ilustrations and items of news have been put out which profitably could be copied by local papers and quoted early and often by all who want to see this kind of a gospel spread. Every draft horse man should help to get such items into print and into talk.

This desired generation of a draft horse atmosphere where it is most needed, is so much a home affair with every one of us who is interested, that for the balance of this article we will mention just some of those particular things which (to change our simile and come down to earth) will inoculate the field of our endeavor with the bacteria most favorable to the spread and better development of draft horses.

In the first place the horses themselves must be such as to constitute their best advertisement. They must be sound, healthy, well cared for, true drafters without bad faults of quality or conformation, and be so trained and handled as to make a good impression and meet all proper requirements. Your home people will not consider outside evidence as to the merits of the class if a good case cannot be made at any time by an exhibit of the specimens at home.

The home breeder's methods of handling draft horses, of buying and selling, must have a look of practicability. If you are in the business your methods must be such that your neighbor similarly situated can see where he can get into the business on a similar footing. Many a man who has need of draft horses on his farm has been deterred (and in many cases absolutely scared out) by the idea gained at big draft horse shows and sales, that he would have to have a lot of box stalls, foreign grooms, flannel rubbing cloths and tissue paper rosettes before he could make a start. We do not wish to be quoted as advocating just the following method, but it might help a whole lot if the suggestion was dropped now and then, that draft colts can be grown with success in very much the same way as we would bring along a bunch of good beef calves. A bunch of draft weanlings in a roadside pasture, showing a hundred pounds each for every month of their age and raising themselves—with the aid of a self-feeder, the blue grass, a rack full of bright tame hay and plenty of fresh water—constitutes a form of publicity hard to beat.

People will talk, and if the draft horse business of your community is organized in such a way as to give them plenty of things to see and say in its favor, a mighty good start has been made. Take a pleasure in telling those who will listen (and pass the good word on) how much your colts weighed as yearlings, and how easy it was to make that weight. Show them that your colts are ready to work a year younger than is customary with the native horses, and that their broad, well covered shoulders do not wear sore under the collar or their muscles shrivel from sweeny so readily as was often the case with the green horse of lighter build. They take home these points. And when you have geldings to sell make the "right" and sell them where the price they bring will be good for a week's general discussion and a fair-sized item in the county paper. Write the item yourself if that is the only way to be sure it is given correctly. There are county paper editors a-

THE CLOSING DATE

FOR THE COMING

Belgian "Stallion Show"

HAS BEEN EXTENDED TO MARCH 28th

This "exhibit" is going to bring out the finest lot of draft horse photographs which ever appeared in a single issue of any paper. Sufficient space cannot be spared in either of the March issues, so the Belgian Stallion Show has been set for April 5—entries and photographs must all reach this office on or before March 28.

Every Subscriber Owning a Good Belgian Stallion Should Be Represented.

Read Full Directions Below

Competition in this contest is limited to mature animals—that is, stallions four years old or over. Each one, as its photo and description are received, will be given an entry number, which will be published with the picture and measurements. No names will be given out until the awards are made. Then all of the entry numbers will be published, along with the names of the stallions, and owners who entered them. Each photograph should give a straight side view of the stallion's body, but may show his head turned slightly toward the camera if the owner desires. Only a few measurements are required. The blank below shows which ones. These measurements, and a good, clear photograph will show pretty accurately, to an experienced man, what the stallion is as an individual. Measurements should be taken with a tape line drawn tight enough to press tight to the skin, but not enough to press into the flesh. We reserve the right to have a committee remeasure any animal and publish the result of its findings. Photographs can be any size, but those on which the stallion's body measures, in length, three to six inches are usually best. It is most important that they be clear and that the stallion stands straight and naturally when photographed.

Make all entries in the blank below; clip it out and mail to the American Breeder.

ENTRY BLANK FOR BELGIAN STALLION.

American Breeder Stallion Show—Kansas City, Mo.

Enter my stallion, as follows:

Stallion's Name.....Record No. .....
Height (measuring from a point level with the top of the withers straight to the ground).....inches. Heart Girth (around body just back of forelegs).....inches.
Bone (around foreleg, smallest place between knee and ankle.....

Owner's Name..... County.....

Postoffice ..... State.....

plenty who will thank you for helping them out to that extent.

Then when the farmers' institute or extension department experts come to your town, get the college to send a good live stock man. Get out as many good drafters (yours and your neighbors) as you can. Secure a good lecture on horse husbandry for the farm, covering points on draft horse values, size, care and conformation, illustrated with the animals themselves. In this way you get the right standards fixed in the minds of your neighbors—and quietly catch onto a few points yourself, as you have the chance. Every time something like this can be done the appreciation for the best stuff is increased and the tolerance for inferior animals is lessened.

The county officers, the city officers, the preacher, the banker, the superintendent of schools, can, and doubtless will, easily be interested in furthering a business that means so much to the welfare of their locality. We have a long way yet to go, before we dignify this business as it deserves, and as it is dignified in the old countries of Scotland, England, France and Belgium. We received at this office the other day a photograph from a small breeder in the northwest part of Missouri showing a postgraduate class of high school girls who came to see his Percherons, as a part of the preparation they were making for county teachers' examination. And what better could they be learning for their work in country schools? We make the children learn the parts of speech, the capital of Persia and the products of Paraguay. Why should they not learn, among the early things at school, the names and characteristics of the leading breeds of our own farm animals? It is good advertising to help them—at least so far as the class of stock in which you are interested.

Business arguments are always in order. There is many an opportunity to get the actual figures on a dollars and cents profit from using draft blood. Every time you can put into circulation a plain statement of the facts in such cases it is just as truly worth while as increasing your yield of corn. On many a farm the same mares have produced colts, first from inferior stallions, and later from good registered draft animals. In hundreds of cases the development and sale of these colts, side by side has proven the case of the drafter beyond any possibility of doubt. But the evidence has not been worked for all it was worth. As a rule, it never gets beyond the realm of neighborhood gossip, and there the owner of the scrub stallion is always on the job and often will manage in some way to cloud the issue. It is well worth while to write out the facts of every such case. Get them straight. Mention no stallion owner's names but make it clear that it was the colts by the registered draft stallion that made the best money. Cut out the element of personal advertising and you can count on your home papers and the better class of live stock papers making use of what you send. We not only print everything of this sort that appears to be fair, but we suggest to our readers that they get their home papers to copy. It is also a good thing to give your home paper briefly the prices which pure bred draft stallions, mares and fillies bring in the market, where this kind of stock is current. Often the exchanges, or can exchange, with agricultural papers that give such facts. Get him started and he may keep it up himself. Extremes in prices, however, are not educational, unless full explanation is given with them. The two points to be made are that it costs something to go out into the national market and buy foundation stock, and also that the business, once started, is supported by a steady demand at good figures.

The part that draft blood plays in

(Continued on page 30.)

THE PLACE OF THE BROOD MARE ON THE FARM

(By E. A. Trowbridge, Professor of Animal Husbandry, Missouri College of Agriculture.

As conditions exist today, our horses are practically all bred on the farms of the United States. And from them we are able to select a few real high class horses. We are told that of all the horses that go on the Chicago market, somewhere under ten per cent of them weigh 1600 pounds or better. Probably, we might say that ten per cent or less of the light horses that go on the various city markets are really high class horses. It would seem to a casual observer that we ought to be able to produce a larger per cent of high class horses than this. The fault lies not only with the mares, but with the stallions, also; but it is the mares with which this article particularly deals.

There are on the farms of the United States 20,567,000 horses. There are in the cities 3,182,729 horses. There are on the farms and in the cities together a total of 4,656,372 mules, making a total of 28,406,168 horses and mules in the United States. Of these, 12 to 14 per cent of the horses are in the cities, which eliminates them as breeders. Practically 8,000,000 of these animals are horses which are incapacitated for breeding or else are mules. This is over 30 per cent of the entire horse and mule population. Of the 20,000,000 horses that are on the farms of the United States, it will be remembered that there are a great many geldings and mares past breeding age. It is difficult to estimate accurately the number of mares which are available for breeding purposes, but it has been estimated as somewhere around 5,000,000. Of these, it seems conservative to say that not over two-thirds of these produce foals, either for the reason of not having been bred or else by reason of having failed to settle, leaving us between three and four million mares to produce foals, or somewhere around one-eighth or one-ninth of the total number of horses and mules which are actually producing foals. With the present demand and the rapidity with which horses are used up and worn out in the cities and on our farms, it seems logical to say that we are in no great danger of an over production.

The price which we receive for our horses is regulated by the supply and demand. If over-production does occur to reduce the price, that reduction will first be seen in the horses of mediocre quality, or horses which do not fit any given class, and with which the market is overcrowded.

As a ground for horse breeding, there is no place in America that can compete with the average farm in the United States and particularly is this true of the corn belt. Our work is such that mares can be used to perform it. There are seasons of the year when it is necessary to work brood mares harder than it seems they should be used, yet by properly planning the work, it can be so arranged and the birth of the foal can be so regulated as to have them come at a time when the work is not particularly heavy. It is certainly not a fact that brood mares can do all the work on every farm, but it is a fact that on the average farm where diversified agriculture is practiced that brood mares and their growing colts can do a greater part of the work. It is undoubtedly advisable on farms where grain production is made a specialty to have a few pairs of mules or mature geldings that can be put through a hard summer's work without seriously hurting them. They can, unquestionably, do more work with less feed and trouble to the owners than can the brood mares, but they will yield no profit except their labor. In this modern day of specialization, it is then quite logical to see some farms which do not raise foals, but the farmer who practices more or less diversified agriculture can produce horses and mules and good ones if they will give the matter attention.

The production of horses has not been developed in the same manner as the production of cattle and hogs. In the latter classes of animals, comparatively large numbers of females have been kept in droves or herds and kept together until they are ready to market. It has been more convenient to handle them in large bands than in small numbers. The mule can always be fed to a greater advantage in larger numbers than in small numbers and such is the general practice of mule feeders. However, the actual production of female mules rests upon much the same basis as does that of horse foals, because they are produced from mares. The greater part of our horses in the past have been produced in numbers from one to half a dozen per year on many farms rather than in numbers of twenty to one hundred on a comparatively few farms. This condition of production has resulted because it was a little safer scheme. The horse business requires large capital. Mares are not as certain breeders as cattle and brood sows. It costs more to maintain the mare that does not produce than it does a cow or a sow. Consequently, if she loses a season and is not at work, the operation results in a total loss of a year's time, together with the interest on the money invested in her. Owing to these facts, the average farmer has owned from one to half a dozen brood mares; has mated them and produced a few foals each year. It is logical that this should have been the case, because under these conditions, when the mare did not produce a foal, she could take the place of a gelding or mule on the farm and be given the brunt of the work, whereas if she produced a foal the next year she can be given a lighter place and some other animal which failed to produce could be used for the heavier work. Men have figured that by so doing they were not losing anything on the mare that did not produce and that they were making a decided profit on the mare that did produce.

It costs more money to handle a mare which is nursing a foal than one which is not, and the production of horses is constantly increasing in cost and in the yielding of profit. In order to determine the relative efficiency of brood mares for farm work, last year, the University of Missouri undertook an experiment. In this experiment three pairs of mares were used and the data on two pairs are here presented. The mares were divided into two lots; Lot I consisting of the mares nursing foals and Lot II of the dry mares. The mares were worked in teams, each team consisting of one mare with a foal and one without a foal. Feed and weight records were kept and the following data is presented:

One of the mares with a foal ate an average of 10.98 pounds of corn, 10.98 pounds of oats and 23.6 pounds of hay per day during the period that she nursed her foal—147 days in length. She had an average weight of 1,386 pounds. The mare that worked with her had an average weight of 1,480 pounds and ate an average daily ration of 7.5 pounds of corn, 7.5 pounds of oats and 20.7 pounds of hay. In the other pair here reported, the mare suckling foal had an average weight of 1,286 pounds and ate an average daily ration of 11.05 pounds of corn, 11.05 pounds of oats and 22.96 pounds of hay. The mare which worked with her in the team had an average weight of 1,363 pounds and ate an average daily ration of 7.29 pounds of corn, 7.29 pounds of oats and 15.98 pounds of hay. The corn and oats fed these mares was of good quality and the grain ration consisted of one-half

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ach. The hay was good mixed mothy and clover hay. The mares ursing foals lost a great deal in eight during the hot part of the ummer, were in very thin condition nd suffered more from the heat than id the other mares. It will also be een that these mares nursing foals te an average of 7.24 pounds of grain nd 5.55 pounds of hay more per day han did the mares not nursing foals. esides this, the foals ate an average f 3.6 pounds of grain per day and 7 pounds of hay daily during the me they were nursing their mothrs. It will be seen from this then, hat the colts should be charged with ot only the feed that they consumed hemselves, but the increased feed required by their mothers. While the others did as much work as the ther mares, they were in thin conition at weaning time, and it has aken considerable feed to get them ack in good flesh. The foals required some labor, because they had o be fed and handled and these perations always cost money. Beides the extra care and extra feed, here was a period of forced idleness ollowing the birth of the foal for en days and there was a stallion ervice fee to be paid.

By estimating the cost of feed, ervice fee and the other items as hey apply in various localities, an stimate can be made on the producon of the draft foal from birth to eaning time, which is approximatey $40 to $60. Thus, it may be said hat brood mares can take their place s a farm team and produce a foal t the same time, yet that does not rgue that the foal is clear profit ecause it will be seen from the above hat this is not the case. If the foal costs $40 to $60 at weaning time, it is evident that there is little profit in producing a foal that will sell for only those figures at weaning time. It is probably not advisable to work brood mares as hard as other mares are worked and on the average farm it is not necessary, but this experiment was inaugurated with the direct idea in view of ascertaining whether or not brood mares could do as much work as other mares on the average farm.

With the cost as estimated here, it will be seen that if we are to produce foals at all, they must be good enough to bring a comparatively good price and if we expect to do that we can only afford to use the best possible available brood mares and patronize the very best possible stallion within our reach.

The motor truck has caused some derangement in the draft horse and mule market, yet we are told that the motor truck will not seriously interfere with a large number of city horses. In fact, the price as seen at the present time indicates that good horses will always be in demand. The automobile has affected the price of light horses, yet the high class light horse is always in demand. Students of the market tell us that the class of horses which have been affected by the motor truck and by the automobile are the "in-between" kind, or the medium horses. But there is a constantly increasing demand for high class horses.

The farms are the only places that we have for horse production in the United States. The demand seems to be permanent and safe for high class horses. The means of producing high class horses is by the use of good brood mares on the average farm in such a way as to make it possible for them to rear a colt and pay for their keep by their work, together with the use of the very best stallions available and in the case of mules and draft horses, and, as a matter of fact, all horses, a liberal supply of feed at all time. Under these conditions, the production of horses will continue to be profitable and pleasant on the average farm.

NORTH DAKOTA HORSE BREEDERS ORGANIZE.

To the American Breeder:—I am sending you herewith the list of officers of the newly formed North Dakota Horse Breeders Association. This association was formed by the horse breeders after a meeting and program which I arranged for at the suggestion of many of them. The meeting was held at the college here, and we had a fine crowd of about 200, representing nearly every section of the state. We had a horse judging demonstration by Professor Richards, and at the afternoon session had discussions on the dourine outbreak in the state and on abortion in mares, by Dr. Crewe, State Veterinarian, and Dr. Vans. Mr. McLarty, a student of the Graham Scientific Breeding School, was present and gave his experience with artificial impregnation. His talk was appreciated by all present.

The following men were elected officers of the association: President, Donald Campbell, Hannaford; vice-president, Usher L. Burdick, Williston; secretary, B. H. Critchfield, Agricultural College; executive committee—Usher L. Burdick, Williston; A. J. McLarty, Starkweather; J. B. Eaton, Fargo; E. O. Ellison, La-Moure; John G. Mills, Hannaford; R. D. Ward, Garrison, and Donald Campbell, Hannaford.—B. H. Critchfield, Fargo, N. D.

DON'T ACCEPT THE OHIO SUGGESTION.

To the American Breeder:—It seems that the Ohio subscriber is of the opinion that the Montana people know nothing about raising horses. But if he will read up a little he will learn that Montana is one of the leading states in the production of fine horses. However amusing the questions of the beginner may seem to him, I suspect it would be still more amusing for him to come west and wake up to the fact that the west is no longer a vast wilderness where buffalo and other wild animals roam at will, but it is a civilized country, up to date in every respect.—Montana Subscriber.

WARNS MONTANA SUBSCRIBER AGAINST MORE LIGHT BLOOD.

To the American Breeder:—I have been a silent reader of your valuable paper for a number of years, but when I saw the letter in your January 5 issue under the heading of "Another Pointer for Montana Man," by E. A. Rickard, I can't keep quiet any longer. It looks to me as though he were trying to "do" the man with small mares. He says Montana Subscriber would do well to buy a registered Morgan or saddle stallion to cross on his mares of 800 to 1000.

Now my experience is that it takes a good many crosses of this kind to

show any improvement and our Montana subscriber will be grayheaded before he would have horses that there is much demand for. Bone and size is what we need out here. We have too many of the road and saddle type now (the kind that our friend Rickard advises breeding) and are shipping carloads of them east every year and getting very little out of them, while a horse that weighs from 1200 to 1400 pounds brings up to three hundred dollars right here at home.

My advice is to breed his mares to a Clydesdale with good quality; not too big for a starter. I have been around in the ranching country a good deal in North Dakota, Montana and Alberta, and am now located in Saskatchewan, and have seen and handled a good many ranch horses and find that one cross of Clyde on 800 to 1000 pound mares gives the colts more bone and size than two of most any other breed, and the Clyde has a heavy coat of hair which is very much needed for protection here in the cold Northwest. The broncho will give plenty of style and action. I am sure mules from these mares would be useless as it takes mares with bone and size to raise mules. I am not boosting the Clydesdale in my own interest, as I have only one horse and that it a registered Percheron stallion.—Charles Lucker, Saskatchewan, Canada.

HOW HOG CHOLERA IS SPREAD.

To the American Breeder:—In the co-operative work of controlling and eradicating hog cholera, being carried on by the Federal Bureau of Animal Industry and a number of the states, an attempt has been made to determine the source of infection wherever a herd was found to be infected with hog cholera. It was not always possible to do this, and in quite a few cases there was some doubt as to the exact way in which cholera had gained entrance to the herds.

The reports of these investigations were presented at a recent meeting of the United States Live Stock Sanitary Association, in Chicago. The sources of infection were divided into two great classes, designated "distant" and "near-by" sources. It was surprising to learn that in 45 per cent of the herds infected, the disease had been spread from "distant" sources. The remainder—55 per cent—appeared to have been infected from "near-by" sources.

In 33 per cent of the cases the infection seemed to be due to the visiting of neighbors, or the exchange of work between neighboring farmers. It has long been thought that this was a common mode of carrying infection, and the results of the investigations appear to verify it. Birds appear to be guilty of spreading the infection in over one-fourth of the cases. Sparrows and crows have been under suspicion for a long time, and it would appear that the suspicion has been well grounded.

Although none of the above figures were obtained from Minnesota, we have no reason to believe that conditions here are radically different from those in the states where the investigations were carried on.—H. Preston Hoskins, Assistant Veterinarian, University of Minnesota.

Cough among the hogs may be due to very dusty quarters. With young hogs it is frequently due to minute thread-like worms in the bronchial tubes. A soft, hacking cough is a very common symptom or hog cholera. Hogs also have the common form of bronchitis and pneumonia, just like other animals, and people. With hogs, coughs and lung troubles, aside from cholera are frequently due to sleeping in warm quarters, possibly piled up, and then going out into cold places to feed.—Dr. M. H. Reynolds.

Hog Breeding; Lesson II

Editor's Note:—So many of our subscribers have written us of their interest in hogs, that we are continuing, in the following article, a series of "lessons" on hog raising. This material is based on the knowledge of practical men and the best trained observation and experimental data. The reader will, of course, need to give all the additional study he can to the subject, but these lessons should serve well as a general guide and a foundation on which to build.

Care of the Pregnant Sow.

There are three things which should be looked after carefully in caring for the bred sow; namely, feed, shelter and exercise. If a man is to succeed he must not neglect any one of these things.

It is entirely too common a practice in the corn belt to feed brood sows only straight corn. This is a practice which should not be followed for several reasons. In the first place, the sow should have more protein or muscle building nutrients in her feed than corn supplies. This is necessary not only to supply her own body needs, but especially for the litter of pigs which she is going to produce. She must also have a feed which is less constipating in its nature than is corn. One of the things which must be guarded against, if strong litters are to be produced, is constipation in the brood sow. The things which commonly cause constipation are too much corn, not enough water and lack of exercise. A sow should also have some bulk in her ration and some feed containing more mineral matter than does corn. Corn, when fed alone, is too fattening and the fat is laid on internally which is injurious to the development of the pigs in utero. Corn is all right if fed with judgment. In the corn belt it naturally makes up a large part of our swine rations. When fed to sows, however, corn should be supplemented with some feeds like linseed oil meal or tankage, shorts and a little bran. Another good feed to use is alfalfa hay or alfalfa meal. Clover or cowpea hay, if not too coarse, also supplies bulk, protein and the laxative effect desired.

The following ration might be given as a sample:

Corn, 50 per cent; shorts, 25 per cent; bran, 15 per cent, linseed oil meal, 10 per cent.

The above ration should be mixed by weight rather than measure. Other rations equally good may be fed. For example, an equal amount of alfalfa hay may be substituted for the bran, or tankage may be used instead of the linseed oil meal. If tankage is used, however, it is only necessary to feed half as much tankage as linseed oil meal called for in the ration given.

When the sow farrows she should not be too fat. On the other hand, it is not necessary to starve a sow in order that she may have a good strong litter and save it. Keep the sow in good condition, using corn as the base ration, but supplementing it with other feeds as mentioned above. It pays in dollars and cents.

There is no class of animals which suffers more from extremes of heat and cold than does swine. For this reason, and because the added returns from a good sow makes it profitable, the best of shelter should be furnished. The shelter need not be expensive to be efficient. Shelter of any kind should be warm, well ventilated, free from dampness, and so arranged that as much sunshine as possible may be utilized to keep it dry and healthy. The things to be guarded against especially are damp or wet floors, filth, and lack of sunshine. The individual hog cot or house makes an excellent shelter for the brood sow and furnishes a good place in which she may farrow.

Any animal to do its best must be in the best condition. This is not possible without exercise. Cell division takes place much more rapidly and the whole animal body is more active when the animal is required to take exercise. Exercise is absolutely necessary for best and even good results with any kind of breeding animals. This is especially true with swine. They are inclined to eat a full meal, pile up and lie down until meal time again. They should, in the winter time, be forced to take exercise. This is something that will have to be worked out by each one on his own farm, taking into consideration the conditions. Water may be placed at some distance from their sleeping quarters or they may be sheltered at one place and fed at another. They must, however, be induced to take exercise in some way.

By proper management and care in feeding, the sow should be brought up to farrowing time in condition not only to farrow a good strong litter, but be able to properly care for them after they are farrowed.

FINDS WHEAT A GOOD FEED.

To the American Breeder:—I always read all I can find about economy in feeding grain, but have never seen anything about feeding wheat. I was born and raised in the western country and have fed all kinds of grain but rye. I have had considerable experience in feeding wheat. I most always grind it nearly as much as I do corn. Horses do just as well and will work as much and not sweat so much as when fed on corn and feel just as good. When I don't have any ground, I soak it from twelve to eighteen hours. I have fed it to stallions also and with good results.

As a hog feed it cannot be beat when ground and dampened, or made into slop. Dry whole wheat is all right for little pigs. Some of my neighbors who never fed wheat, laughed at me for trying to fatten pigs on ground wheat, but when it came time to butcher, I had the finest hogs and best flavored meat.

I would take wheat at the same price in preference to corn, unless I was where I could not grind it. It is cleaner feed and has four pounds to the bushel more. There isn't much corn but what has more or less rotten stuff in it. It seems queer that some people in the west will buy corn with a lot of rotten stuff in it at 80 cents when they could get good, clean, pure wheat at 73 to 75 cents a bushel. —A. M. Eubank, Woods County, Okla.

CHOLERA CAUSES MOST HOG SICKNESS.

The Department of Agriculture at Washington, D. C., is in receipt of frequent inquiries concerning methods for distinguishing hog cholera from other swine diseases. The specialists in hog cholera investigations answer inquiries as follows:

Although at first thought this matter of diagnosis appears to be of prime importance, in reality it is not so important or so difficult as it seems. It is estimated that at least 90 per cent of all deaths of hogs from disease in the United States are caused by hog cholera. Therefore, in the case of any fatal outbreak, the chances are about nine to one that the cause is hog cholera. It is true that other infections may and do frequently complicate outbreaks of hog cholera, but in such cases the germ of hog cholera is the primary cause of the disease; and if we can take care of the germ of hog cholera the pig will usually overcome the other infections himself.

The symptoms exhibited by hogs sick of hog cholera are not sufficiently distinct from those produced by other maladies so that a positive diagnosis can be made only through a careful consideration of a number of other factors in connection with the symptoms. From a practical standpoint the important thing is to recognize hog cholera as soon as possible after its appearance in a herd in order that anti-hog-cholera serum may be applied before the disease progresses too far. Good serum may be depended upon to protect well hogs, and even to cure a large percentage of those in the earliest stages of the disease, but it will not be of much avail when used upon hogs that are already visibly sick.

The following suggestions to farmers are offered as an aid to the early recognition of hog cholera in a herd:

1. Keep posted concerning the condition and health of hogs on other farms in your neighborhood. Sick hogs on a neighboring farm are a positive menace, for the germs of hog cholera are easily carried on the feet of men or animals.

2. Look over your herd regularly in order that any sick hogs may be promptly discovered.

3. If any hogs in the herd are found to be "off feed" or appear in anywise sick, separate them immediately from the remainder of the herd, and keep them and the main herd under close observation daily. If there is a tendency for the disease to spread in the herd the trouble is probably hog cholera. This diagnosis may be confirmed by killing one of the sick animals and examining the organs in the manner described in Farmers' Bulletin 379, U. S. Department of Agriculture.

4. When the first symptoms of sickness are observed an immediate change of feed sometimes corrects the trouble. This is particularly true of swill fed hogs.

5. If there is any tendency for the disease to spread in the herd, do not temporize, but immediately treat the herd with serum from the State College or State Live Stock Sanitary Board. Prompt administration of the serum is essential to success.

7. Remember that hog cholera kills millions of hogs where other diseases kill thousands. Dismiss from your mind all thought of such diseases as "lung plague," "infectious pneumonia," 'pig typhoid," etc., for these are generally merely fanciful designations given to hog cholera by uninformed men.

AN EASY TEST FOR DIRTY MILK.

To the American Breeder:—It needs no argument to prove that milk contaminated with stable filth is no more fit for food than other foods exposed under the same objectionable conditions. Dirty milk is not only objectionable because of any visible dirt, but because of the invisible bacteria which accompany it and threaten the heatlh of the consumer, especially infants. It is claimed by one who has made investigations, that 5,000,000 babies in the civilized world die every year and that about 4,000,000 of them could be saved by the use of clean milk.

Dirty milk that has been carefully strained through a layer of absorbent cotton may not show sediment on the bottom of the bottle, but that is not a final test for its quality. Most of the bacteria were washed through the filter and these bacteria finding the milk favorable to growth, increased greatly in numbers.

The following test will indicate the presence of stable filth in both the visible and invisible states:

1. Cleanse a test tube or small bottle with boiling water.

2. Cool to the temperature of the hand by holding it by the bottom in an inverted position.

3. Fill half full of the milk in question and maintain a temperature of from 90 degrees to 100 degrees for about twenty-four hours.

4. Look for gas holes in the curd, which, if numerous, indicates dirty milk, and if present in such numbers as to cause a floating curd, indicates very dirty milk.

The egg incubator or the thermos bottle may be used in securing the proper temperature.—W. R. Wright, assistant bacteriologist, Idaho Experiment Station.

Boys' Pig Club in the South

The United States Department of Agriculture is interesting the younger generation on Southern farms in the breeding of good hogs. It is the object of the department to encourage the young men to raise at least enough pork for home consumption, and, if possible, a surplus for the market. It also aims to encourage the home-curing of meats and the growing of forage crops while discouraging the use of high-priced feeds. The work of the boys' pig clubs also is planned to complement the work of the boys' corn clubs by showing the boys how they can profitably sell their corn through hogs.

The boys in these clubs learn how to judge hogs and to select them for breeding or market purposes. They also learn practical ways in the management, feeding, sanitation and prevention of diseases of swine, all of which information proves valuable with respect to other forms of livestock work.

Any boy between the ages of ten and eighteen may become a member of a pig club. Each boy must secure at least one pig if he becomes a member. Each member must care for his stock in person and keep a record of his pig for at least four months in order to compete for a prize. The members of the club must agree to study the instructions which the department sends out for the benefit of the hog raisers. The new bulletin outlines a plan of organization for the boys' pig club, giving a sample constitution and by-laws. The work is conducted by the department in cooperation with the various state colleges.

Wherever possible the Bureau of Animal Industry places a state agent in every Southern state desiring to carry on this work. The state agents assist in organizing the pig clubs, and give full instructions and advice to any youthful pig growers who apply for it. The agents can often help a boy in purchasing a pure-bred pig at a moderate price.

Some of the points which the department advises the youthful hog grower to bear in mind are the following:

1. The feeding and care are as important as the breeding in producing a good hog. Plenty of feed and good care may make a good hog out of a runt, but lack of it will always make a runt out of a good pig.

2. To make pork cheaply a permanent pasture and forage crops must be used.

3. Young pigs must have a dry bed and plenty of sunshine.

4. Begin feeding the pig as soon as he will eat, and keep him growing until he is mature.

5. Always keep plenty of clean, fresh water where the hogs may drink at any time.

6. Quarantine all newly purchased animals for three weeks.

7. Never keep a female for a brood sow, no matter how well bred she may be, if she will not produce more than four strong pigs at a litter.

8. The more milk a sow will give the faster her pigs will grow.

9. Lice prevent a hog from doing well.

10. Always keep a mixture of charcoal, wood ashes, lime, sulphur, salt, and copperas before the hogs.

These points are emphasized in a bulletin just issued by the Bureau of Animal Industry, entitled "Boys' Pig Clubs, with Special Reference to Their Organization in the South." It can be had free by the young farmer by application to the department at Washington. It contains a number of illustrations, a design of a portable hog house, which can be built easily and cheaply, and a design of feeding pen for small pigs.

In the pamphlet are some very important cautions which should aid the young farmer in preventing the dangerous disease of hog cholera. Here are the suggestions:

Do not have hog lots next to highways, railroads, or streams. If your neighbor's hogs have cholera, do not allow anyone from his farm to visit your farm, and especially your hog lot or pens, and keep away from your neighbor's hog lot, whether his hogs have cholera or not.

Do not keep pigeons, or allow them to alight on your premises.

Keep away crows and buzzards.

Quarantine all new hogs brought to your place until you are sure they are free of disease.

Do not allow a patent medicine man on your place, for you do not know how recently he has visited a sick herd.

Disinfect your wagon and your own shoes and clothes after hauling hogs to stock yards or railroad loading pens.

Avoid every possible way of carrying infection to your hogs.

RED WATER IN CATTLE.

To the American Breeder:—Bulletin No. 112 from the Agricultural Experiment Station, Pullman, Wash., treats of the disease in cattle commonly known as "Red Water."

The disease is most common in certain localities of the coastal region of Washington and in western Canada. Several letters recently from Idaho and the Northwest, and two or three from Colorado, reporting condition of bloody urine in cattle, has caused us to take more than a passing interest in this disease. It is reported that about thirteen per cent of the cattle in the red water districts have the disease and none of them recover.

The exact cause of this disease has not been determined, but forage is looked upon with suspicion. The author states that, "Many stockmen are of the opinion that the disease is caused by the eating of ferns, especially when these plants are producing spores. Others attribute it to the eating of pine or fir shoots, moss and various other plants which abound in these districts."

In the mountainous districts of Colorado animals occasionally suffer from bloody urine, probably from eating acrid plants, but in certain districts of Washington there appears to be a common etiologic factor which has yet to be determined.

The blood of sick cows seems to be innocuous to healthy ones, but inoculations with the bladder lesions appears to have been successful in producing the disease.—George H. Glover, Colorado Agricultural College.

STIMULATING MILK SECRETION WITH SERUM.

We have all heard of the man who turned on an arc light in his henhouse every night at midnight and fooled the hens so that they all got up and laid an extra egg, but we do not know that he is a relative of the New Yorker who is claimed to have used an injection of serum from the pituitary gland, to stimulate an increase in the quality and richness of the milk secretions of a goat. The Kansas City Star gives the story in the following dispatch dated at Ithica, N. Y.:

According to R. H. Hill, a graduate student at Cornell University, a goat had been made to give milk of twice the quantity and five times richer in cream through the injection of a recently discovered serum under the skin or into a large blood vessel of the animal.

Whether the same process will give equally gratifying results when applied to cows has yet to be determined, but the investigators are hopeful.

The serum is a preparation from the pituitary gland of live stock. It has been found that injections have to be made frequently in order to keep up the increased production. It is but a short time after the injection that the increase is noted.

The Fight for Hog Health

The Department of Agriculture at Washington, during the past year, has been conducting campaigns in Indiana, Missouri, Iowa and Nebraska to control the contagious disease of hogs known as "hog cholera" by means of anti-hog-cholera serum and farm quarantines. In one county (Pettis county, Missouri) where there was a loss of 18 per cent in 1911 and 25.6 per cent in 1912 of all hogs raised, there was only a loss of 14.7 per cent up to November, 1913. This decrease was due to the use of the serum, which, although not used there by the Department's agents until August, 1913, materially reduced the loss. About 60,000 hogs were raised during the past year and of the 10,000 that died of the hog cholera only about 1,000 were lost after the active use of serum and quarantine measures were inaugurated.

In every county where these measures were employed, even though begun after the disease had continued its ravages for some time, there was less loss from hog cholera than in either of the two preceding years.

In addition to its great function as a preventive, it has been found that the anti-hog-cholera serum would cure a large proportion of hogs in the early stages of the disease and render them immune after recovery. However, if hogs are not treated by this serum, from 75 to 100 per cent of all affected herds, die. This serum, so far as is known, is the only thing that will prevent the disease.

Of hogs actually sick when treated, the Department's inspectors lost but 25 per cent during the past summer. Of well hogs in diseased herds, 2.8 per cent died after being treated, and of hogs in exposed herds less than 1 per cent died after being inoculated with the serum. In an infected herd there is always a certain proportion of hogs that are well.

The inspector examines the hogs when he arrives, takes the temperature of all hogs in the herd and separates the sick from the well. The temperature is an indication of the sickness. The temperature of a sick hog, unless the hog is near death, will run above 104 degrees and sometimes as high as 107 or 108 degrees, Fahrenheit.

Some states are engaged in the manufacture of serum to cure this dis-

(Continued on page 28.)



I want to tell you something New about Northwest Texas

You, who are looking for every chance to better yourself — to find ways and means of getting more real money for your labor and capital invested — should cast aside past ideas of the great Texas plains and investigate the late development there.

Within the last two years water for irrigation has been found within pumping distance of the surface, over an area of more than a million acres. The fertility of this deep soil is proven by the tremendous crops that result when it is irrigated. Alfalfa, kafir (pictured above) and wheat (shown below) yield wonderfully.

Beef-cattle and hogs put on meat rapidly. The climate and the abundant feed raised on low-priced land bring them into market condition at less cost than possible farther north.

Buyers are close at hand. Fort Worth pays practically Kansas City prices all the time.

You should know all about this section as it is to-day. I want to send you our folder describing the Shallow Water Country. In that booklet you will find all that I would like to tell you here. You will find it interesting and profitable. I will send you a pamphlet, also, of letters from farmers on the ground — men who have made good. I will tell you, too, of the Santa Fe Agricultural Department and the help it gives, without cost.

Just write a postal, "Send Shallow Water Country," and get acquainted with a good business proposition.

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PHOTOGRAPH TAKEN IN LECTURE ROOM DURING JANUARY TERM.

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Dissecting Mares, Anatomy of the Male and Female Organs—Physiology of the Generative Organs—Cells—Infection—Breeding Questions—Breeding Instruments—Foaling—Scientific Mating—Horse Judging—Mule Judging—Barren Mares—Barren Stallions—Abnormal Conditions—Diseases of the Foal and Fetus—Diseases of the Male and Female—Contagious Abortion—Feeding—Testing Breeding Stock—Determining a Mare's Breeding Condition—Buying Breeding Stock—Hereditary Defects—Horse Breeding—Rectal Examinations for Abnormal or Diseased Conditions; also for telling whether a mare is in foal or not—Getting the Semen—Inserting Capsules, etc.

EQUIPMENT AND EXPENSES.

The school has its regularly equipped building, which is just north of Convention Hall, Kansas City, Mo. In the lecture room of this building are numerous charts, stereopticon apparatus for showing pictures and illustrations during the lectures, all kinds of breeding appliances and other equipment necessary for instruction in all the latest methods in horse breeding. A veterinary hospital is utilized in the dissecting work and the barns of dealers in mules and horses in the lectures on types, judging, etc.

Accommodations for all students will be arranged for by the school authorities without charge. They have reserved rooms and board at moderate rate—from $1 to $1.25 a day—sufficient to provide quarters for all who come.

Remember the date and prepare to be here next term. When you get here take Observation Park street car at Union Depot; get off at 12th street and walk one block east. Tuition is $25, which entitles all students to a free return privilege for life. For other information address

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"REAL FACTS IN HORSE BREEDING."

To the American Breeder:—Please find enclosed draft for three years' extension to the American Breeder—the only medium in existence when it comes to real facts in horse breeding, natural photos, exposing the bogus pedigree crooks who have wrought havoc with the horse breeding industry.—J. V. Mayer, Whitman County, Washington.

WANTS DIRECTIONS FOR BREEDING STALL.

To the American Breeder:—Can some one of the readers of the American Breeder tell me how to build a breeding stall for mares that weigh from 1100 to 1400 pounds? Please give dimensions. I want to build a stall in the corral for my range mares. —Fred Anderson, Meagher County, Montana.

A PAPER OF MANY LESSONS.

To the American Breeder:—Just received my February 5th issue of the Breeder and the lesson by Prof. R. C. Obrecht of Topeka, Kas., on "The Ideal Conformation and Type of Horses," was very interesting to me. This one lesson, brother horse breeder is worth many times the price of the paper and is not the only lesson, but there are many lessons in each issue of the valuable paper every farmer should read. They should subscribe for and also be an agent for this paper.—J. H. Moormann, Dickinson County, Kansas.

R. L. HARRIMAN, Bunceton, Mo.

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"AND THAT IS SOME TERRITORY."

To the American Breeder:—Enclosed find one dollar for subscription to the American Breeder, the best paper for farmer and breeder in the world, and that is "some territory covered," but will have to be shown before I would take back what I say.—J. H. Martin, Lincoln County, Okla.

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Questions and Answers.

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

704—BREEDING QUESTION—I have a Percheron stallion, age 12 years, and he has never bred over two mares a day. How old are the majority when their usefulness is over? He has always had good care.—Iowa Subscriber.

REPLY—An answer to the above is largely dependent upon the characteristics of your animal. Many stallions are still useful when well advanced in the twenties. If your horse has been properly cared for he ought to be serviceable for several years yet.

705—WOUND ON JACK—I have a black mammoth jack that kicked and knocked off that hard place behind the fetlock joint and it has got sore. Can you give me a cure or tell me what can do?—Kansas Subscriber.

REPLY—As a rule, such wounds should not prove troublesome. First apply tincture of iodine to the wound once a day for three days and follow by gently rubbing some calomel into the wound twice a day.

706—RIDGLING—Is there any remedy for a two year old stud colt that don't swing both seeds? If there is, please publish.—Missouri Subscriber.

REPLY—Nothing can be done to cause the descent of the testicle into the scrotal sac, yet if you have a valuable pure bred colt it is not advisable to have him castrated at this time. Give him another year and possibly he may come all right.

707—MISSOURI STALLION LAW—Has the State of Missouri a law where the party has bred his mare and gets a colt and won't try to pay for it. Can I take this colt by law and sell it to get my insurance fee? I don't remember of seeing the Missouri colt law.—Missouri Subscriber.

REPLY—Go to your justice of the peace and bring suit for the attachment of the colt, which is the same in your state as the feed bill law. Your justice will show you how to make out the papers.

708—BLOODY MILK—I have a three year old milk cow that gives bloody milk in her front teats. Can see no reason for it. It is clots of blood; some lumps felt in teats; the other teats appear to be all right. One of the affected ones is nearly dry. What do you suppose it is, and would also like to have remedy as she is a good cow.—Iowa Subscriber.

REPLY—It would seem in your case that the bloody milk was due to the presence of small tumors within the quarters affected, and if such is the case no treatment can be offered. Such animals should always be shown to be free from tuberculosis as shown by the tuberculin test, and if found free from that disease, extreme gentleness while milking is about all that can be done.

709—BAD FEET—Please let me know what to do for a jack's feet. The hoofs on the front feet are cracked in checks like a checker board. The squares are small and rough; mostly in front part of hoof.—New Mexico Subscriber.

REPLY—We fear you have permitted your jack to remain in a stall where the manure has been permitted to accumulate and that his feet have been injured by the ammonia as set free from its decay. The feet are unquestionably hard and they should be soaked until they are well softened. After the soaking apply a light coat of vaseline in which a small amount of pine tar has been stirred. Every three weeks apply the following just above the hoof, allowing it to extend upwards for about two inches; powdered cantharides two ounces, vaseline eight ounces; mix together and rub well when applying. Tie the animal's head up sufficiently so he cannot contact the parts with his nose and allow the application to remain on for 24 hours, at the end of which time wash off with warm water and soap, and when the parts are dry apply a little olive oil once a day for a few days.

710—IN HEAT DURING PREGNANCY—I have a mare that raised a mule colt last year and looks to be in foal again, but when she sees a stud she acts as though she was in season. Is a mare ever in season and at the same time be in foal?—Colorado Subscriber.

REPLY—About 10 per cent of all pregnant mares will receive the embrace of the stallion under certain conditions some time during pregnancy. Practically any stallion owner can turn to his books and see where he has made numerous services and the mare delivered a foal from a former service. A great many colts are lost each year by the mare being rebred while pregnant. The owner of the mare, as well as the stallion owner, ought to remember how a mare acts when she is in good heat. Too many mares are teased extensively and a forced service is made.

711—BLOODY DISCHARGE—I have a big mare, about 16 years old. When she is in heat she throws off blood. What is the cause? Is there anything to do for her? She had a colt this year. I sold the colt for $150. Will the trouble hurt her from breeding?—Illinois Subscriber.

REPLY—Such an animal should be carefully examined by a man of experience to determine whether or not the hemorrhage is due to the presence of tumors. If not, it is very likely that in her case the mucous membrane of the uterus becomes unduly congested during the period of estrum. If the latter is true, and she can be settled, it is quite likely that pregnancy will improve the condition.

712—BLOOD WART—My coming two year old filly has what I suppose is a blood wart on front side of hock; has been there for about a year. I tied a silk thread around it once and cut it off, but it came back big as a goose egg. Please tell me what to do to remove it permanently.—Nebraska Subscriber.

REPLY—We fear that the unsuccessful removal of this new growth has greatly aggravated conditions and that from now on it will grow very fast. You just now need a good, competent surgeon who can relieve the condition by removing the growth with the knife, and you should not delay having this attended to.

713—BREEDING TWO YEAR OLD MARES—I have always had a great deal of trouble in getting my two year old fillies with foal by the natural service. Have to work on them all the year to get any of them in foal. I intend to try the capsule system of breeding this spring and would like to know if I can expect better success with this age mares.—Texas Subscriber.

REPLY—Two-year-old mares or those which are growing rapidly are not easily fertilized by any method. Those which are very nervous, or afraid of the stallion, can be benefited by the capsule service by handling them gently and not allowing them to get frightened. You should also keep all geldings and horse mules out of the pasture away from these young mares.

714—GREASE—I have an imported Shire stallion that has had a touch of scratches a few times, and now he has

(Continued on Page 15.)




TRUMANS' CHAMPION STUD

The World's Greatest Collection of

SHIRE STALLIONS AND MARES — PERCHERON STALLIONS AND MARES

BELGIANS AND SUFFOLKS TO SUIT THE MOST CRITICAL BUYERS

Seventh 1913 importation of Shire, Percheron, Belgian and Suffolk stallions arrived October 13. Thirty-five years in the business and not one dissatisfied customer. "Our prices are the lowest." Send for our handsomely illustrated catalogue. Imported Shire and Percheron mares for sale. Mention the American Breeder. Address,

TRUMANS' PIONEER STUD FARM

Bushnell, Illinois

Paramount Stock Farm

Home of the International Grand Champion Belgian Stallion Farceur



Breeds and Imports

Percherons, Belgians, Shires.

My November importation is ready for business. My two-year-olds, Percherons and Belgians, are weighing 1,860 to 2,000 lbs.; three-year-olds and over, 1,900 to 2,250 lbs. They are high class and sound. I am making prices that sell. I will pay any man's expense who can say he is disappointed in the size and quality of my horses. 75 head to select from. Write your wants. Send 10 cents in stamps for large picture of the horse parade.

WM. CROWNOVER, Hudson, Iowa.

Robison's Percherons

175 For Sale



Best Collection of *Stallions* and *Mares* ever offered for sale in the West. Come and see me if you mean business.

None Can Undersell Me

J. C. ROBISON, TOWANDA, KAS.

WHITEOAK STOCK FARM

American Bred Percheron Stallions and Mares.

The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.



THE AMERICAN BREEDER

With which is combined
THE STALLION AND JACK NEWS.

A Journal of Live Stock Improvement and Modern Breeding Practices.

FRANK B. GRAHAM and T. W. MORSE, Editors.

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If you miss your paper please notify us at once and all lost copies will be replaced.

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JUST AS REPRESENTED.

One of our readers informs us that he answered an advertisement in the American Breeder and the stock was nothing like the representation made in the paper or by letter. That it cost him considerable time and money to make this investigation.

This advertisement has been withdrawn and the advertiser cannot purchase space in the American Breeder. We do not want this kind of business. We do not need the money. We want our readers to feel perfectly free in corresponding with our advertisers. We want them to have confidence in these statements so that they will not hesitate to go and purchase better stock.

One of the strange things of business is why men make these misrepresentations in their advertisements. When such misrepresentations are found out the purchaser immediately loses confidence in the one who wishes to dispose of his stock. There is no other line of business that requires more confidence than that of disposing of breeding stock. Without breeding ability many of our leading and most valued sires would be worth only hundreds, where they are now worth thousands.

We have refused many pages of advertising from crooks and we do not want business from those who advertise misrepresentations that cause men to make unnecessary trips. In all correspondence with advertisers the inquirer should mention the American Breeder, and should keep copies of all his letters, and save all the letters received. While no man should expect to invest money in breeding stock without first having fair knowledge and judgment to guide him or expect any one else to protect him from his own carelessness or oversight in making a deal, we want to hear from any of our subscribers who have been deliberately deceived or defrauded.

ASKING VETERINARY QUESTIONS.

We are in receipt of a question from one of our readers which carries with it much more than the question asked. This reader states that he has a veterinarian employed who has seen the stallion and had an opportunity to make a personal investigation. The question is as follows:

"I have a black stallion eight years old. I turned him out in the lot and he strained his leg between the knee and the pastern joint. It is swollen in both sides of bone. He is a road horse. It was done about December 14, 1913. I had a veterinarian with him, who said it was a strain in the tendon, but I would like to know how long before he will get over it. It is in the front left leg. Do you think he will get over it, and what do you think would be the best thing to do? Indiana Subscriber."

It is unprofessional and dangerous to have more than one veterianarian or physician working on a case at the same time, unless the professional men are also in consultation, or are in harmony so that each individual may know what has been done in the case. More animals have been destroyed through the use of treatment that have ever been cured. The country is full of men with free advice. Only a small per cent of them know the value and danger of strong drugs or have any idea of the anatomical structures, or how nature performs its duty.

The perplexing question in this to us is that this reader has had a veterinarian make a personal examination yet he is not satisfied with the statements received from this professional man. Is it possible that this reader does not have confidence either in the character or the ability of this veterinarian, or is it from lack of knowledge of these parts by this reader, or is he seeking the opinion of numerous men to find out which one of them will be right in the end?

Our advice to this man is that if he is not satisfied with the character and ability of this veterinarian, seek the services of one qualified. This qualification carries with it a reputation for being successful. The cheapest is sometimes the dearest, and the individual who talks the most may not always have the right "dope."

The point we wish to convey is this, that when a qualified veterinarian has been called, and has an opportunity to make a personal investigation and make a thorough examination, how could this reader expect us to make a more complete diagnosis from the few lines he has written? It would not be good judgment on our part to criticise the work the other veterinarian has done if a qualified man has been employed. This case, as well as all other technical veterinary cases, depends largely on the time the practitioner is called. The average breeders over the country wait to see if the animal is going to be serious before a veterinarian is called. It is usually the hard cases that are brought to the attention of these qualified men.

It is our intention to prepare a series of lessons in diagnosing horse diseases so that our readers will know when to get a veterinarian promptly. This service should be appreciated not only by the owners of live stock but by every fair-minded veterinarian. It has been demonstrated that men who are the best educated employ the services of qualified men first; they are able to see the necessity of quick action. Nothing can be more satisfactory to the owner, as well as to the veterinarian, than to have success. There are no two classes of men that should work together more in harmony than the qualified veterinarians and the breeders of live stock.

Our Question and Answer Department will be open to any and all questions concerning live stock and we expect to give the best possible service.

BREEDS OF LIVE STOCK.

One of our subscribers informs us that his little daughter, who is seven years of age, has learned all the different breeds on the front cover of the American Breeder. She can point out any breed from the appearance of the picture. This might contain a good suggestion for every farmer and every teacher of a country school. Just a little study along that line will give the average child a good idea of the different types and breeds of farm animals. It might be surprising to know that perhaps only one breeder out of 100 is familiar with all these breeds. Every breeder ought to get familiar with the different classes of live stock because each of them has some right to exist. No one breed has a monopoly on the good qualities.

Every school teacher might do worse than to take the front page of the American Breeder and learn and teach these different breeds. Every breed of live stock reflects the conditions under which the breed was developed, and the demands of the people who have developed it. It may be fortunate that, we, as American citizens have a better opportunity to study all the different breeds than any other nation has. Only by such comparisons as are thus afforded can we make an intelligent decision. The individual who closes his eyes and states that his breed is the best and only one would not make a good juror in a criminal or a civil suit. Neither can he be expected to foster the greatest idea of American live stock breeding, that of constant improvement.

SEMEN TEST.

Every man selling stallions and jacks should be equipped with a microscope and have somewhere in the vicinity a mare which will take a service at almost any time. There is no better advertisement than to state that a semen test will be given with every stallion or jack sold. This shows that an animal is a breeder at the time he is disposed of and it takes away all thought of a counterfeit animal. A few sires have been sold that did not get results. This has been talked so much that some men are afraid to buy for fear they should purchase an animal and use him a year with great loss. A breeder or dealer that is not capable of making a semen test should learn how. Any school boy can learn how to do it.

SPOILED JACK.

An Iowa reader states that he purchased a 3-year-old jack last spring at a long price which gave good service for about six weeks. But something happened and he refused to serve. He borrowed a jennet and worked him with the assistance of this long-eared female. He now states that the jack refuses to make a service unless he has a jennet present, and asks us what to do with the jack.

This ought to be a lesson for everyone who expects to purchase a jack. The mistake made by this breeder has cost him a lot of money. A jennet jack is not worth as much as if he had never been used in that manner. Occasionally a young jack will stop for a day or two. They may get frightened at a mare or some changes about the barn, or perhaps the one handling the animal may have been a little rough or done something a little out of the ordinary Usually a little kind treatment and time will be profitable and get results.

Ordinarily if this jack is not too much enamored with a jennet he can be brought out of this habit by using a little urine from a jennet and placing it on the tail of the mare, allowing him to smell it.

There are thousands of men who hesitate in buying jacks because they are afraid they cannot handle them. A jack in the hands of an experienced man is very little more trouble than a cow. A good big paddock, regular feed, kind treatment and a little study should make any one capable of handling an animal of this kind. There are an army of men who own stallions that could purchase a jack very profitably. The mule industry is growing rapidly. Practically every section of the United States, except a few northern states, is producing jacks.

PRESERVE YOUR PAPERS.

It seems as though this office has received hundreds of letters from readers stating that they had preserved every copy of the American Breeder and Stallion and Jack News since the issue of number one and volume one.

We have made no attempt to keep track of these communications but certainly there are a good many of our readers who have these papers laid away. Many more of our subscribers are doing this now than ever before, and a great many have asked how they could best take care of them, saying that they frequently wanted to refer to our department of "Questions and Answers," or to some special article which had been published in some past issue.

The very best way to save copies of the American Breeder so that they can be looked through with convenience whenever occasion requires, is to keep them in a binder, and add each new copy to the volume as it is received. Two years ago we had some of these binders made up for use in the office of the American Breeder, that have been in daily use ever since and are now practically as good as new. They will hold anywhere from one to 60 copies of the American Breeder at a time and hold them in place firmly. It takes only a minute's time to add the new paper when it comes, to this volume, and the protecting covers and weight of the other papers help to keep it straight and in good condition.

We have had so many calls for something of the sort from our subscribers that we have had an order of these binders made to sell. They are just the same as the ones we use in quality of material, but are somewhat neater. They have the name American Breeder in gold letters on the cover. We can send these out to our subscribers postpaid at $1.00 each. We hope our subscribers will order these at once for they are the greatest sort of convenience and will be a big help to us in serving the needs of the American Breeder family. Elsewhere in this paper we print an advertisement of this binder showing a photograph of one which is in daily use on the desk of the writer.

HORSES AND HOGS.

The second lesson in hog breeding in this issue contains valuable information for every live stock producer. Every sentence conveys a valuable thought. It is prepared in condensed form and is a sample of the kind of lessons we expect to convey to our readers on other subjects. During the coming year it is our intention to take up several subjects for discussion; all of them will be relative to improved live stock. We hope all our readers will study these lessons carefully, not only for their own financial benefit, but for the assistance of others. Every man conveys some information to his fellow men one way or another.

The study of hog production for every American farmer, and especially for those in the corn belt, is one of the most important. It is our intention to continue making the American Breeder a better paper for all classes of live stock men, and especially for horse breeders.

Take advantage of the three-year rate now. We will never be able to make a more liberal one.

MIGHT YOU FORGET THIS?

Renew your subscription now. Soon the breeding season will begin and then you may be too busy. We have hundreds of calls for back numbers from subscribers who have delayed renewing until one or more issues have been missed. Often it is impossible to supply all the desired copies. Time and again all our reserve stock of papers has been exhausted by orders for extra papers, or by an unexpected run of new subscriptions asking to be started with a certain issue. Refer now to the wrapper on your paper. If the figures after your name are 2-14 that means that your subscription expires this month. If they are 3-14, 4-14 or 5-14, that means that your subscription expires in March, April or May, and that the safest thing to do is to send in your dollar at once while the rate is in force, thus insure yourself against overlooking it when the time comes. Your subscription will be extended three years beyoud the time to which it is already paid.

FROM A MEMBER OF BOTH RECORDS.

To the American Breeder:—I have never missed a copy of your paper since the first issue. I don't think there is a paper published in the United States today doing as much for the advancement of horse breeding. If all agricultural papers were as persistent in standing for the right and condemning wrong, the crooked breeders would soon have to go out of business. I was much pleased with the article entitled "Registering Percheron Horses," in your issue of February 5. If the editor of the —— —— and other agricultural papers had been half as vigilant in condemning the crooked importers as they were Mr. Thompson, when the Percheron Society was formed, we would not have had two other books. It was for this reason that I joined the Plainfield Association at that time. I also belong to the Percheron Society. I have found the Plainfield Book absolutely straight, and if any honest breeder can give a good reason why these two books should not be consolidated, I for one would be glad to know what it is. Top crosses cannot be a barrier, for I am satisfied there are as many if not more in the P. S. A. as in the Plainfield book. I predict success for the American Breeder. I know you are doing a great work, and the field is large.—F. T. Wallace, Christian County, Ill.

TROTTING ACTION IN SADDLE HORSES.

In Europe little is known of our famous five gaited saddle horses. A saddle horse across the water is usually known as a three gaited horse, walk, trot and canter. The trot and the walk are the principal gaits. For this reason a considerable study has been given this kind of "going." We give below an Englishman's views on the subject:

"Extravagant action on the part of harness horses, especially when owned by rich men who are fond of a little flourish, is estimated at its proper value, although it may not be appreciated for a long journey; and the majority of spectators are vociferous in their admiration. They love to watch those beautiful bent knees. For saddle work, however, the position is different, and, discussing this question with animation, some of the Continental critics have now a great deal to say. Whilst they like to cut a dash in the pigskin, even they recognize that too high action is not desirable for that purpose, since one does not wish to be shaken all to pieces when trotting down the road on a hack that has conceivably cost plenty of money. Nice, even movement, sure and true—as pointed out by the critics named—ought to be regarded as an essential qualification of a riding horse; and he certainly must be a good walker. If he "sticks his toes in," or has a tendency to "knuckle over," we may rightly dismiss him from our calculations in his carrying capacity. The better bred, of course, the better.

Some of the eminent critics, when dealing with this subject as if their hearts were in the work, express a preference for thoroughbred hacks, and they are on the right scent. Although, as a rule, thoroughbred horses do not show off any high trotting action, they are comfortable to ride, possessing a good shoulder, plenty in front of saddle, a beautiful canter, and vivacious temperament. But they should not be bought for the purpose indicated after they have been probably broken down in training stables; after that catastrophe their trotting action is not likely to be very gaudy, nor are their mouth and manners invariably meritorious. A coarse-bred hack who knows how to behave himself and is confidential, seems to suit some people quite well, but the connoisseurs generally do not appear to approve of him. Their fondness, as alleged, is for a "bit of blood." Tastes differ, of course, in this respect as in others; it would not do for us all to think alike, or prices would go up inordinately, and dealers would get rich quickly; but, all the same, breeding should be esteemed as a premier qualification. Trotting action of the conspicuous sort may be admired in harness.—H. G. H."

STALLION SERVICE RECORD BOOK

This book has 200 pages like the specimen page in this ad. It is substantially bound with a good, strong waterproof cover. It has 20 index pages for keeping the owners' names in alphabetical order so that any name or mare can be found quickly.

The breeding contract at the bottom is the strongest possible kind of a note. It is a big help in making collections, as nearly every state has a law for the collection of labor debts without exemption, and this is a contract to pay for services rendered. Before it is signed run a pencil through two of the lines in the contract, leaving the line that makes the kind of a contract you want. Many will sign a contract who would refuse to give a note.

This book has a calendar and a gestation table. It can be used for several sires without carrying more than one book. This is the most complete and up-to-date service record book printed. It is a nice size and can be carried easily in any pocket. Every breeder should have one. After improving it for several years, the result is this most satisfactory book. A complete new edition is just out. Although this new book has double the capacity of those offered heretofore, it sells at the old price. It is not bulky as it carries no advertising or other unnecessary matter. It will be the standard record book used by the leading breeders.

If you are not satisfied with the book or do not consider it the best and cheapest on the market, return it and your money will be cheerfully refunded. The price is 50 cents; six for $2.75; postage prepaid. Send all orders to the

GRAHAM PUBLISHING CO.,
225 West 12th Street,
Kansas City, Mo.

Sire Lucifer
Mare Belle Color Gray Age 6
Marks Left front foot White
Womb {Closed / Healthy / Loose} Height 16 hands Colt {Yes / No}
Mare Owner John Brown
P. O. Kansas City, Mo
Capsule

DATE BRED.

Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1									
22									

RETRIED

15								
22								

BREEDING CONTRACT

$ 15.00 Date Feb. 1, 1914

For services rendered, I promise to pay (fill in with stallion owner's name)
_____ or assigns fifteen dollars
When above described mare is known to be in foal
When above described mare delivers a living colt
When colt of above described mare stands and sucks
or before mare changes ownership, mortgaged or leaves county.

Signed John Brown

Page 16

Above shows exact size of page and the way to properly fill out the blank for one form of breeding contract, scratching out extra lines.

POSITION WANTED.

With a stock farm or horse and jack breeding establishment. I am a graduate of the Scientific Breeding School and have had good success with the capsule system. Have had 20 years experience in the breeding business, and have had in charge some of the highest priced stallions and jacks and considered among the very best in the United States. Can furnish the very best of reference.

A. F. SIMPSON,
400 Price Ave., Columbia, Mo.

WHAT WAS RUINING HIS BUSINESS.

To the American Breeder:—I used the capsules last spring in breeding, and followed the directions sent the best I could. One must be clean and keep the temperature right, but the trouble with me was how to manage all sorts of diseases. I knew they they were brought to me and that they were ruining my business. They will ruin any man in the breeding business if he does not attend the Scientific School. I attended last August and I am going to attend one term a year. No one can afford to do less.—J. C. Buckles, Alfalfa County, Okla.

ANSWER TO A BRAND QUESTION.

To the American Breeder:—I saw a question in the January 20th issue asking who used the branded "2" (figure two) in the west. A man by the names of Charles Rice uses this brand on Salmon River. His address was "Charels Rice, Freedom, Idaho."—The Palace Stables, Pullman, Wash. (Freedom is no longer a postoffice in Idaho.)

Position Wanted.

By graduate of the Graham Scientific Breeding School. I am 30 years of age; have had plenty of experience in breeding and handling stallions and jacks. Can furnish best of references. Wages reasonable.

ALBERT RUDLOFF, Lynch, Nebr.

Stock Farm for Sale; one of the best in Washington county, Kansas; 314 acres; half grass; 30 acres alfalfa; balance farm land nearly all tillable; all fenced and cross fenced; never failing supply of both well and spring water; good six-room house; barn 60x62 and basement; located one and one-half miles from Greenleaf, Missouri Pacific division point. Also three standard bred registered stallions for sale; extra choice. Address, **J. R. Pruden, Washington, Kan.,** Owner.

Farm To Exchange

320 acres fine, smooth, clover, alfalfa farm; fine improvements; 80 miles of Kansas City; owner wants North Missouri land; 505 acres four miles from Schell City, Mo.; fine improvements; all smooth; 140 acres in wheat goes with deal. Want stock farm.
T. M. TRIPLETT, Garnett, Kansas.

320 ACRE FARM

For sale or trade. Will trade for good young jacks; some registered Percheron stallions and mares. Located five miles from good town; two railroads; mail route and phone line. For further information, address, **A. Altman, Almena, Kansas.**

WANTED IMPROVED FARMS AND WILD LANDS.—Best system for quick results. Full particulars and magazine free. Don't pay big commissions.
WESTERN SALES AGENCY,
Minnapolis, Minnesota.

Live Stock Market Review

New life came to the trade in horses the past two weeks from the East, and the improvement was noticeable, as that section had been laying out of the market up to the first of the month, now it is attempting to make up for lost time. One reason of improved demand was lower rates east, established by express companies on the first of February. The reduction in rates amounted to about 15 per cent compared with the old schedules. This amounts to considerable money on big consignments and is sufficient to afford a better selling margin with the East. Up to a few years ago all horses shipped from markets went in stock cars. Express companies bid for the business by having large commodious cars, with stall compartments fitted up and gave shippers the advantage of passenger time. Rates for such services were high, but they paid in less time consumed and better treatment of the animals. Now rate reductions are in process and the ultimate end will be still lower rates, and the handling of equines in the most humane way of any live stock. The East has to be connected with the Central West for its supply of good horses, and dealers look for a good active demand from that section up to mid summer. Prices for drafters and good chunks are $5 to $10 a head higher than two weeks ago. Eastern buyers say they could care for larger supplies without disturbing prices. The Central West farm demand is still quiet, though before the close of this month a marked improvement is expected. Brood mares are sought eagerly but they have been in such light supply that total volume of business has been comparatively small. Southern horses are in better demand than at any previous time this year, but buyers want only those that are fat and in good condition. The entire cotton belt is buying, and with them the rush of spring work is well started.

While there was a marked improvement in the trade in horses, mules have sold slowly, January having filled the big part of Southern orders. However, receipts have decreased and prices.

Sales held in various sections of the state, however, uncovered as good prices as at any previous time this year. One dealer says that the big mule companies in the South pretty well loaded up but are selling out to an advantage, and in a week to ten days demand at Northern markets will be as strong as ever. The South is preparing for a big crop acreage this spring, and they have the backing of high value crops produced last year, and the incentive for great crops needed this year.

In both common horses and mules the trade shows characteristic swings. A few days there was eager demand, but the rest of the time trade was listless and plain and common kind showed accumulation. Prices fluctuated $10 to $15 a head according to strength in demand, and it took price reductions to start the trade moving.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Drafters, 1,700-pound up	$225@285
Drafters, fair to good	150@225
Chunks, good	165@190
Chunks, fair	100@160
Southerners, good to choice	135@160
Southerners	85@130
Driving horses	65 up
Mules—	
13½ to 14½ hands	$100@140
14½ to 15½ hands	135@170
15½ to 16 hands	165@215
16½ or better	200@285

Fat Steers Lower Again.

In the past two weeks the best weather of the season for consumption of beef has prevailed, but buying of cattle live weight has been limited and prices receded 25 to 35 cents and last week were the lowest since the middle of January. Packers prior to February 1 had seen prices rise slowly and the recent decline was an attempt on their part to retain meat prices within the limit of broad consumption. A further advance in prices, they argue, would have curtailed demand in all lines. However, at the close last week the East was the center of the worst cold spell of the season and this will not only affect the marketing of cattle in those sections, but broaden demand for beef. The market in the next ten days is expected to recover the entire loss of the past two weeks. Chicago is the only market that is receiving anything like normal supplies of grain fat cattle. In the West, Colorado, Texas, Oklahoma and Northwest, steers that have been fattened on hay, beet pulp, cotton seed meal and silage are the principal offerings. Such cattle are reaching market two weeks to a month ahead of time, and a shortage will result later. In the winter wheat belt a large number of cattle have been carried on wheat pasturage and many of them will be fed cotton seed cake on grass for early summer marketing. None of the corn belt now has a seasonable supply of steers on full feed, and where cattle are eating grain it is in limited quantity with rough feed a big factor in the daily ration. March to June demand for fat cattle is usually large and this year supplies from all sources promises to be short. The top price for steers in the past two weeks was $9.55, and a fairly large number brought $9 to $9.50. In the West nothing strictly prime was offered, and choice steers made $8.85 to $9. The bulk of the short fed steers brought $8 to $8.65, and Western and Southwest steers $7.50 to $8.40, and the top price on the quarantine side $8.20.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$8.90@9.25
Good to choice steers	8.00@8.85
Fair to good steers	7.50@7.95
Common to fair steers	6.25@7.45
Meal fed, choice	7.50@8.40
Meal fed, common to fair	6.75@7.45

Only Fluctuations for Cows.

Cow prices have fluctuated 25 to 35 cents, and demand is strong enough at the low swing to cause a quick upturn in prices. The season is rather remarkable in that killers are unable to control the market for any length of time. Shippers are buying freely and the supply is none too large in numbers and very plain in quality. Only a few odd head of prime heifers have been offered and they sold at $8.75 to $9. Choice cows brought $7 to $7.50, medium grades $5.75 to $6.50, and "canners" $4.25 to $4.85. Veal calves sold up to $11.25 early this month, but last week closed lower with the top prices $10.50. Bulls are selling at $5 to $7.50 and are in active demand.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$7.00@ 7.50
Fair to good	6.00@ 6.90
Common to good	5.00@ 5.85
Canners	4.50@ 4.85
Heifers—	
Choice	8.50@ 9.25
Good to choice	7.75@ 8.40
Plain to fair	6.50@ 7.65
Common	5.50@ 6.45
Veal calves	6.00@10.50
Bulls	5.00@ 7.50

Setback in Stockers.

Demand for stockers and feeders was urgent up to the beginning of cold weather ten days ago, and then both the supply and demand began to show decreases. last week trade became the dullest of the season, and prices were quoted off 25 to 40 cents. Mild temperatures will cause a renewed outlet. At the beginning of the month prices were the highest ever known at this season of the year. Pasture men now are congregating in the Southwest intent on making contracts for spring deliveries of cattle. Prices are expected to be high, but many prospective buyers say that they have lower pasture rates than last year.

The following quotations are for stock and feeding cattle.

Selected feeders	$ 7.75@ 8.25
Good to choice feeders	7.25@ 7.70
Plain to fair feeders	6.50@ 7.20
Selected stockers	7.65@ 8.15
Good to choice stockers	7.25@ 7.60
Plain to fair stockers	6.25@ 7.20
Stock calves	7.00@ 8.50
Stock cows	4.75@ 6.50
Stock heifers	5.00@ 6.75
Milch cows	60.00@110.00

New High Levels for Hogs.

An advance in hog prices in the past two weeks carried the market into new high grounds for the season, and within the shadow of the 9-cent level. The top price in Chicago was $8.90, St. Louis $8.90, St. Joseph and Kansas City $8.75, and Omaha $8.65. Traders expect 9 cents for hogs before the close of this month. Compared with the January level prices are about 25 to 35 cents higher and about 60 cents higher than a year ago. Moderate receipts and light average weight due to the scarcity of feed are factors in the advance. Packers are already short on pork product for this season of the year, and the spring and summer season promise no increase. Iowa is shorter on hogs than any other state, and Chicago depends on that state for heavy hogs in March. In the West January and February marketing has been at the expense of future supplies.

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week
Mon.	$8.30@8.65	$8.20@8.85
Tuesday	8.40@8.75	8.10@8.50
Wednesday	8.35@8.75	8.00@8.45
Thursday	8.30@8.65	8.10@8.55
Friday	8.25@8.55	8.20@8.57½
Saturday	8.30@8.50	8.25@8.50

The following quotations are for hogs.

Choice, 250@300 lbs	$8.45@8.60
Choice, 200@245 lbs	8.30@8.60
Medium weight	8.15@8.55
Light weight	8.00@8.25
Common to fair	6.50@8.00
Stags	5.75@8.50
Boars	4.25@6.75
Bulk of sales	8.25@8.55

Dull Trade in Sheep.

The sheep market made new low levels for the season in the past ten days. Lamb prices were below $7.50, and yearlings down to $6.50. In the past few days the market rallied moderately, but the advance still left prices at unusually low levels for this season of the year. Receipts have been heavy. Colorado, Kansas and the Northwest are marketing freely and early grass in the Southwest promises an unusually early movement of Texas sheep for April. Light receipts are needed to strengthen the market. Choice fat lambs are quoted at $7.50 to $7.65, yearlings $6.25 to $6.65, wethers $5.40 to $5.75, and ewes $5 to $5.40.

When treating cattle or other domestic animals for lice, bear in mind that it is just as necessary to clean up and disinfect the stables, as to treat the affected animals.—Dr. M. H. Reynolds.



GUARANTEED

Controls the most unruly stallion without injury, and will not hurt the kindest and most docile horse. Fits the largest draft stallion or the smallest pleasure horse without adjustment. Sent by registered parcel post to any address upon receipt of $4.00. Money cheerfully refunded if it fails to make good the guarantee.

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UNION STOCK YARDS

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SATISFACTION OR MONEY BACK

We ship on approval, **prepay the express,** and allow the user to be the judge of the Elk Leather "Never-break" halter.



Used by Buffalo Bill — Sells Floto Shows, also Denver Fire Dep't. Guaranteed to outwear any two black leather halters ever made.

Dealer's price, $3.00. For advertising purposes we offer sample halter for $1.50 or four halters for $5.00 on **direct factory shipment.**

WRITE TODAY and shipment will be at your door within a week, all charges prepaid. **Send no money unless you care to do so.** If you desire to send cash with order and decide upon examination that you don't want the halter, your money will be promptly refunded and shipment returned at our expense. Fair enough, isn't it?

Don't Wait. Write Now.

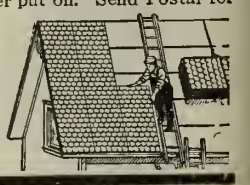
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On Steel Shingles, we underprice everybody. We sell direct from factory to user. And our enormous business permits a very low profit per sale. We pay the freight and guarantee safe, prompt delivery.

Edwards Steel Shingles can't rot or burn. And the Edwards Tightcote Process and Patented Interlocking Device positively prevent *rust.* Outwear best wood shingles, cost less and are easier put on. Send Postal for latest Prices and see for yourself what you'll save. Give dimension of roof if you can. If not, send the Coupon below. Write today and you'll hear by return mail. Ask for Book 276



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Please send Book on your Steel Shingles, together with latest Freight-Paid prices.

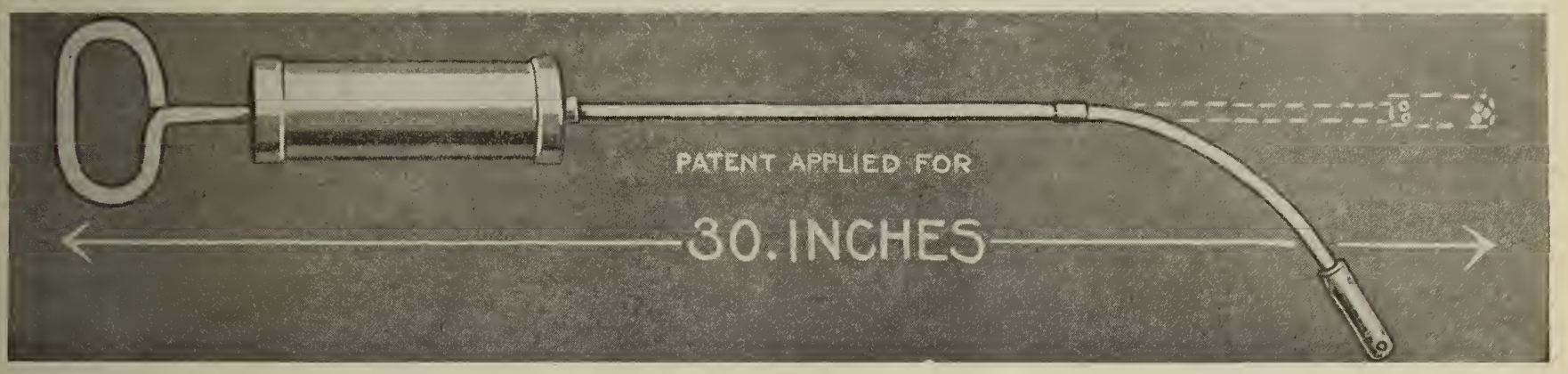
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SPECIAL PRICE, $5.00

(Good Only Until March 1, 1914.)

On the Improved Carlson Semen Extractor, Complete



THE IMPROVED CARLSON SEMEN EXTRACTOR AND CAPSULE SYRINGE

This extractor has been improved so that it is much easier to use. By its use the proper temperature can easily be maintained. Anyone should have good results with this instrument by following the directions carefully. This is the only instrument made that has been successfully used for getting the semen from the uterus. We believe this instrument with its improvements will make it possible for any ordinary breeder to use the capsule system successfully. It has a soft metallic point that will stand bending a thousand times. All necessary directions will be sent with the instrument.

Reliable Breeding Appliances of All Kinds

Pointed Breeding Capsules

We have the only capsules made especially for horse breeding. Some capsules do not dissolve, leaving a foreign substance in the uterus which will prevent conception. Other capsules are too flimsy to use for this purpose. You cannot make any mistake by buying capsules from us as we only have one kind. We have them boxed with 100 in each box. The box is tight so they will be clean. These capsules are properly baked and all bacteria killed before they are mailed. Always keep the lid on the box when not in use.

Price per box (100), $1.50.

Bulb Impregnator

This is the best bulb impregnator on the market. Some dealers sell for $5 and $6.

Price, $3.00.

Veterinary Thermometers

This thermometer is recognized and used by the leading veterinarians for taking the temperature of animals. It has a metal case which insures it against breaking and will last a life-time. It has a small chain with pin in it that may be fastened to the vest pocket and carried with safety.

Price, $1.25.

Thermometer

Tested and used for keeping water at the right temperature.

Price, $1.00.

Microscopes

For use in testing the semen of stallions or jacks. Magnifies 500 times and is used by veterinarians and physicians. Price, $35.00. Boxed in fine case. These instruments are of great value in the breeding business. Through them you can see for yourself and show your mare owner the live spermatozoa of your sire.

Price, $35.00 Each.

Curved Metal Impregnator

This instrument is sold by other dealers for from $5 to $6. It is nickel plated, about 22 inches long, with a glass tube in it.

Price, $4.00.

Breeders' Bags

Three sizes, small, medium and large. Stallions weighing 1,200 or 1,600 pounds usually require a medium size. These bags are guaranteed not to tear from any cause before March 1, 1914. If they do tear before that time return the top part with our stamp on it and 35 cents in cash and we will send you a new bag.

Price each, $1.00.

Directions for Ordering

Send money orders or draft as exchange is always charged on personal checks. Always name your express office as well as your post office address in order to insure prompt delivery.

POSTAGE AND EXPRESS PAID ON ALL ORDERS.

THE KANSAS CITY IMPREGNATOR COMPANY

Twelfth and Central Streets :-: :-: :-: :-: :-: :-: **Kansas City, Missouri**

Scientific Breeding School

The last term of horse breeding for this season will begin early Monday morning, March 2, and last one week, with day and night illustrated lectures and demonstrations. This will be the last opportunity to get this personal instruction until next August. A lot of men are going to miss this opportunity. Taking part in the work of dissecting a string of diseased mares and seeing their genital organs taken out and placed side by side, is the only way breeders with ordinary education can learn to know the different conditions, and it is worth the time and money for any breeder to cross this continent, if he expects to stay in the breeding business.

Each student will have an opportunity to get practical work on these mares. This class of men certainly need this work. At the last term of school the writer gave personal attention to see how much these men knew about this subject when they came here. It was surprising to know how little they really knew about the inside of a mare, and it was remarkable how these men learned so much about it in such a short time. But every student knew that he would be expected to use this information as soon as he got home, and he had come to master this subject. These men worked diligently and never seemed to tire of the instruction. In making rectal examinations for diseased ovaries, kidneys and other abnormal condition in that region, as well as learning how to diagnose pregnancy, a majority of these men were awkward at the beginning but by the time all of the mares are worked a great improvement could be seen. An instructor has charge of each mare. The first student begins with mare number one; when he is through he goes on to another mare and another instructor teaches him another lesson, and so on down the line. This practical work gets results. After they have had nearly a week of practical instruction they are then lined up with barren mares which find their way to the horse markets, and they are asked to make their diagnosis on different animals.

Many changes have been made in this school. When some of the earlier students attend they find that it pays well to take the work all over again. It is the intention to keep this school improving, and a special invitation is extended to all students to return at any number of terms, but a special request is made that each student attend at least once a year so as to keep up with the times.

A look at the photograph which appears elsewhere in this paper is sufficient evidence that a high class lot of citizens are interested, and working earnestly for the improvement of live stock and humanity. The last term was perhaps the most successful. In fact, the school improves with time. The object is to utilize every minute to the best possible advantage. At no other institution in the world that we know of have men ever been known to acquire so much valuable knowledge during the same length of time. The school begins each morning at 7:30 and with only time enough for meals and a little exercise, lasts until 10:30 at night. With their note books and pencils every man watches every word and act of the instructors.

One of the difficulties with men attending this school is that some are afraid to show their ignorance. But this is a place where men assemple, not to show their smartness, but for the purpose of learning. No man is allowed to "crack a smile" at the mistakes of another. Some may think this is hard to enforce, but if they will attend the school they will find out how easy it is done. If some "smart" fellow insists on making fun of another breeder he has an opportunity to show his smartness in such a way that he will be glad to "keep his pants on the seat" the next time, and keep a straight face. It is a common remark at the school, "How is it possible for a bunch of horsemen, all strangers, to become so attached in such a short time?" A number of them sleep in the same room with their clothes and money lying around without any thought of having anything taken. Nothing is done or said among these men that cannot be heard or seen without offense by any intelligent person. It is all business. Breeders cannot leave home for any length of time. This makes it necessary to utilize every hour of the entire week to the best possible advantage.

There is just one way to be on hand at the next term of school and that is to make arrangements and come. If every one would wait until they had nothing to do, the attendance would be very small, indeed. Physicians, veterinarians, lawyers and other professional men have to study from three to five years in addition to spending a large amount of money, and then go home and establish a practice. Most of the breeders interested in this school have their business established and can go back home and double their output without increasing their investment. No breeder having a good stallion or jack can afford to overlook this proposition for the small amount of money and time required.

Another remarkable thing is how these students learn to use and understand the necessary technical names. They are repeated together as a class so that every one gets the correct pronunciation. The location of the parts named is given and becomes readily familiar. Nearly every man who attends, states in the beginning that he cannot learn to speak "those big names" or understand the functions of the parts they stand for. There is hardly an individual who attends the school who cannot speak all the names successfully before the school is over. Where men make up their minds to learn rapidly, and feel perfectly free and not afraid of making mistakes, it is wonderful what can be accomplished.

The tuition fee of this school is $25 for a life membership. This school is guaranteed to be satisfactory in every respect or the tuition fee will be refunded, the student being his own judge. There will be no restrictions; the full amount will be tendered to any student on the last day of the school.

Remember, this is the last opportunity before the breeding season begins. Students can attend this term and go home and put their knowledge right into practical work. Those who fail to be on hand may remember these statements all through the breeding season, and more especially when a diseased mare is presented for breeding. A student who has an opportunity to see a dissected mare that has that disease called "barrenness in mares," will always be thankful that he learned to refuse to breed one of those mares.

The average breeder can attend one term and receive a diploma, by paying close attention to the work. Some breeders believe that it is necessary to know the anatomy of the entire horse. This is not the case at this school. Just the genital organs are dealt with so far as production is concerned. It does not take a lifetime to

Right Here at Kansas City
You Can See and Buy
THE HIGHEST TYPE OF PERCHERON MARES
and fillies, either imported or American bred, kept under healthful farm conditions, and sold reasonably.
THESE MARES AND FILLIES ARE BRED TO MY CHAMPION IMPORTED STALLION, GLACIS 55260 (71473).
Farm Easily and Quickly Reached From My Office.
F. P. BURNAP, 107 West 10th St., - - KANSAS CITY, MO.

Joseph Rousselle & Sons, Seward, Nebraska
PERCHERON, BELGIAN AND SHIRE STALLIONS AND MARES
We make a specialty of good, big, rugged type and action. Our two year olds weigh from 1800 to 1900; age horses from 1850 to 2260. In fact, we can show about as big horses as are living. We were in Europe early, which enabled us to get the right kind. We are natives of France and save in buying, also in selling to customers. Prices from $900 to $1,250; a few tops a little higher; home-bred come cheaper. Will furnish a state license according to the Nebraska law. Our guarantee and terms are right. Write, or better, come and see us. Seward is 26 miles west of Lincoln. Farm joins city on the north.

300 PERCHERONS
We have 50 suckers, both sexes; 100 yearlings, both sexes—Imported and Home Bred; 150 matured stallions and mares, from Two to Six Years.
We have the best mares and fillies we ever owned or ever saw. Our yearling stallions are of heavy bone and extra good quality. Our 2-year-old and matured stallions are not excelled by any barn in the United States. Our mares are bred to our best $3,000 stallions, Honorable and Jalape.
We have been in the horse business 39 years. Stock just as represented or we pay your expenses to look at them.
SINGMASTER & SONS, Keota, Iowa
Branch Barn Sioux City, Ia. SINGMASTER & WALKER.

THIRTY PERCHERONS AND BELGIANS

and one Shire. They range in age from 1 to 7 years; all sound and heavy boned; weighing from 1800 to 2,200 pounds. There are 17 stallions and 13 mares. I will also sell my herd stallion, Jupiter 65723, coming 5 years old; weight, 2200.
These stallions are all sold under a guarantee to be 60 per cent foal getters. I have four year olds that weigh 2200; 2 coming 3 that weigh 1800. Can sell a good ton stallion for $750; sound and right in every way; some a little higher, and some lower. I will sell at a bargain to early buyers. I have both imported and home bred stock. PETER J. EGGERS, DENISON, IOWA.

PERCHERON STALLIONS
IMPORTED AND HOME BRED.
To dissolve partnership we will sell two black imported stallions weighing 1850 and 2100 pounds; sound; sure foal getters. Priced to sell. Also have home bred stallions from weanlings to coming three year olds for $250 to $500. For particulars, address
C. B. DANNEN & SONS, :-: Marshalltown or Melbourne, Iowa

PERCHERONS
Prices That Will Profit Early Buyers on Both Stallions and Mares.
The mares range in age from weanlings to aged mares, and the stallions from weanlings to 3-year olds past.
I have been in the business a long time and on account of not being able to get competent help am compelled to close out. If sold in a bunch I will make the price right.
GEORGE HIRSCHMAN, Pierson, Iowa


20—STALLIONS, JACKS AND JENNETS—20
Imported black Percheron stallions, 5 and 6 years old; weight from 1700 to 2100 pounds. These horses are well broke and tried breeders. Can show best colts in Kansas. Also one fine sorrel Morgan stallion, 7 years old.
Big, black, registered Mammoth jacks and jennets; 1 to 5 years old. Jacks 15 to 16 hands high; tried breeders and quick workers. Can show colts. Herd headed by imported Spanish jack. We won more prizes at the Kansas State Fair in 1912 than all our competitors. Farm 30 miles Northwest of Hutchinson. Come and see us. Will meet trains at Chase or Raymond. J. P. & M. H. MALONE, Chase, Rice County, Kans.


For Sale at Riverside Stock Farm
PERCHERON STALLIONS AND JACKS FOR SALE.
One large black Percheron stallion, 9 years old; up-to-date breeder. One dark bay stallion colt, 3 years old; weight 1900 pounds, extra well bred. Two black registered Percheron colts coming 2 years old; very large and good quality. One imported German Coach stallion, dark bay or brown; 8 years old; with great action and style; weight 1500. One standard bred stallion, 16 hands high; weight 1280 pounds; registered and sound and has proven himself a great breeder. I also have two black mammoth jacks, 15 to 15.2 heavy weights.
O. L. THISLER & SONS, CHAPMAN, DICKINSON CO., KANSAS.
(On the main line of the Union Pacific R. R., 150 miles west of Kansas City, Mo.)

TWO STALLIONS TO SELL.

One imported black Percheron; well bred; No. 60185; 6 years old; weighs about 1900 in flesh. Is gentle and sound and good foal getter. Has been in service on my farm since 1909. Fillies in the way.

One standard bred stallion, of trotting blood; No. 45384; dark bay with small star; about 16 hands high; weighs close to 1300 pounds. Very fine style and a good driver; also a good foal getter; 7 years old; in service on my farm for 5 years. Fillies in the way.

Both the above stallions have been examined twice; the last time in spring of 1913, by Division of Animal Husbandry of the State Agricultural College of North Dakota, and reported as free from all infections, contagious or transmissible diseases or unsoundness. Both these horses gave me good satisfaction. For prices write to M. F. Hrabe, Owner, Knox, N. Dak.

PERCHERONS
For Sale

Two iron grey mares, Crouch's importations, 8 years old in spring; safe in foal to imported horse; weigh over a ton; sure breeders. Also their two yearling fillies and their two stallion colts. The mares are champions of the state. The fillies won first and second as colts, and in two classes as yearlings at Fort Worth Stock Show. The horse colts took first and second in two classes; the blue ribbon filly took the red as champion mare against all aged mares. They are high-class; sound; good feeders; thoroughly acclimated. They are too classy to sell at living prices in this country.

JOHN W. WRAY, FT. WORTH, TEX.

GOING TO QUIT BUSINESS.

Four big stallions and jacks. One Imp. Black Percheron; 7 years old; extra heavy bone; straight legs; best of feet; weight 1900. Tried breeder; colts to show. One grade black Percheron.

Two big registered black Mammoth jacks with white points; 15½ hands high, standard; extra large head and ear; heavy bone; straight legs; big feet; good workers on mares or jennets. Plenty of colts to show.

R. H. BAGLEY, Zenith, Stafford County, Kans. (On Kinsley branch Santa Fe, 33 miles west of Hutchinson, Kans.)

PRICED TO SELL.

A dark iron gray three-year-old registered Percheron stallion; weighs now 1,800 and should mature at a ton. Extra heavy bone; well proportioned; a good server; gentle and broke to work. Sired by Minet 44897 (60963) and out of a $700 black 1900 pound mare; other colts to show her breeding.

If in the market for an extra good stallion at a breeder's price, call or write at once.

F. P. FREIDLINE, Caney, Kans.
Route 1. Bell Phone.



FIFTY STALLIONS AND MARES.
$250 to $1000 Each.

Write for my illustrated **Circular telling why I can save you money on** the purchase of Percheron or Belgian stallion or mare.

A. W. GREEN,
Middlefield, Ohio.
R. R. Sta., E. Orwell, on Penna. Ry., between Ashtabula and Warren.

PERCHERON STALLION.

FOR SALE—Registered: Dark steel grey; coming three years old; weighs 1750; has great bone; deep in girth; short in back; good feet; fine style and action; a good disposition. For particulars write

W. P. BLUCK,
Steubenville, Ohio. Route 1.

150 STALLIONS

Imported and home-bred stallions. I guarantee to sell you stallions for less money than any firm in America. Come to a Live Horse Market and see all draft breeds. Reference, any Bank in Creston. **A. Latimer Wilson, Creston, Iowa.**

PERCHERONS

For Sale. Imported and home-bred stallions and mares at prices that will sell them.

H. REDENIUS,
RUSHMORE, Nobles County, MINN.

get a lot of information about these organs, especially where everything is demonstrated either with charts, lantern slides or animals, both dead and alive. This part of the work is given more complete at this school than at any other school in the world.

There are some who believe this is a veterinary college, but it is not. It is a breeders' school. It is a school of instruction developed for this particular profession by post-graduate veterinarians, female specialists and experienced breeders. The investigations have cost a fortune, and the breeder can get the benefits for a very small price. The doors are open to a better and more useful as well as a more profitable life to those who wish to attend the next term of school. Nowhere can a breeder spend a little money and a week's time to a better advantage. We can print hundreds of testimonials, but enough of them have been printed giving the names and addresses of those who have attended.

This school is located in the state of Missouri and those who wish further information on its qualities can be shown. Will you be numbered with those who are members of a new profession known as "Scientific Horse Breeders," and be able to display a diploma and proof of your ability as a member among this professional class of men.

Fathers and mothers need not be afraid to send their boys to this school. Even though they may have started wrong before they reach the school we believe they will go home and change their methods, and numerous temptations will be forgotten. When 50 per cent of our young men have had one particular disease, which not only shortens their lives but the lives of their families to come, they may well afford to learn a few things about their health and happiness. They will see illustrations that will make them better and cleaner.

At the last term a young man was asked to give his experience concerning the management of the school, and he said that his mother objected to his coming because he would be associated with a lot of tough men. He said when he got home and told his mother of the class of men who attend this school, she would be glad to have him come again, and he knew that it would make a great change in his life because he would be careful of his associates. He closed by saying that he wanted to be a gentleman and lead a better and cleaner life and be a useful citizen, and thanked the men present for the care they had taken of him while they were together.—Advertisement.

Joint ail in colts and calves is simply an inflammation of joint structure due to a germ infection which gains entrance through the raw navel cord at the time of birth or very soon after. —Dr. M. H. Reynolds.

LA FAYETTE STOCK FARM

Largest Importers in America of Percheron and Belgian Stallions and Mares. Over 200 head on hand. When your locality has a horse from this great farm every one knows he is the right kind. Write us or come and see us.

We are also breeders of pure bred Hampshire Swine.

J. Crouch & Son, Props. **La Fayette, Indiana**



PERCHERONS at PRICES

that will profit early buyers of both stallions and mares. The mares range in age from 4 to 8 years old, and the stallions from 3 to 5. I have been in the business a long time and wish to reduce my stock. These are all good ones. If sold in a bunch I will make the price right.

I. H. VANNORSDEL, Kingsley, Iowa

Questions and Answers

(Continued from Page 9.)

for the last two years had hard bumps and kind of callouses under and around his ankles, except in front, mostly under in the long hair. They are not raw and do not seem to bother him only when he does not get plenty of exercise, then he bites and scratches at his legs until he gets bloody places on them. Some of the hard bunches are as large as a hen egg. Will you kindly tell me what will remove them? —South Dakota Subscriber.

REPLY—You no doubt have a horse that has a predisposition to sore legs and if not properly cared for is going to give you no end of trouble. Your inquiry already indicates the remedy —exercise. This should be given daily in a systematic manner. His stall should be kept scrupulously clean and he should only be kept in moderate flesh. Apply to the wounds three times a day the following: Sulphate of zinc one and one-half ounces, acetate of lead two ounces, carbolic acid one dram; water to make one quart. Shake well before applying and saturate the wounds well. Continue treatment for several weeks if needed.

715—EVERY OTHER YEAR MARE—I have two good mares, one of them does not breed only every second year. She is in good shape. She brings good mule colts every second year. Why don't she breed every year?—Arkansas Subscriber.

REPLY—Breed this mare on the seventh day with a capsule. The stallion should be tested with a microscope at that service. If the semen is not good at that service, you will have an opportunity to breed her within a day or two afterward, when the semen may be good. But before she is bred the owner should look at the cervix by using a speculum to see if she has cleaned properly, or whether the cervix has been lacerated. Many of these mares are heavy milkers and the energy goes to the milk supply instead of nourishing the ovaries to the extent of producing live ova that will fertilize. This is the reason that they should be bred on the seventh day for the best results.

716—GREASE HEEL—I bought a mare some time ago and she has the grease heel. It looks as though she might have had it for several years. I am using blue vitriol on her. Is this as good a remedy as I can get or how would peroxide do? I am using the blue vitroil once a day. Is that enough, or could I put it on more often?—Kansas Subscriber.

REPLY—If you have a case of grease of several years' standing you no doubt need the personal guidance of a qualified veterinarian in order to get things started off all right, and

Three Percheron Stallions

For sale; two two-year olds and one yearling. All registered in Percheron Society of America. Will sell cheap.
HUGO WESTERMAN, Lake View, Ia.

TWO PERCHERON STALLIONS

For sale, or will trade for good mares or mules. They are both by the 2,350 pound imported stallion, Favori 59441 (59321), as follows:

Vortex 95527, foaled 1912, black with star, 1450 pounds; out of Aubepline (imported), weight 2150, and Pawnee Diamond 72138, foaled 1910, dark steel gray, star, 1900 pounds; out of Polka (imported), weight 2000 pounds.

FRIZELL & SONS,
Frizell, Pawnee County, Kansas.

50-Head-50

Percheron, Belgian. Shire and Clydesdale Stallions.

WRITE FOR FOLDER

M. T. BERNARD, GRAND ISLAND, NEB

For Sale--2 Registered Percheron Stallions

Full brothers, 2 and 4 years old. Both black. Sired by Imp. Ellan, their dam a Brilliant bred mare. Will make 1800-lb. stallion at maturity. I bred both these colts, and will sell them worth the money. See me or write,
J. H. McCULLOH, Creighton, Missouri.

PERCHERON STALLION

For sale. Duke (56249); six years old; dapple gray; extra good bone; low down; wide out with plenty of style and quality; weight 2000 pounds. Sure breeder and business getter. Plenty of fine colts to show, many weigh 1000 pounds at year old. Price right, am changing business.

Also two year old French draft stallion, good one. Price $500.
G. L. DUTTON, Keota, Iowa.

PERCHERON STALLION.

Ragoleur 41399 P. S. A., foaled 1904, dapple gray, 2100 lbs. Very heavy boned. A fine breeder; colts to show. Am quitting the business, my reason for selling. Price $700. He cost us $1,000 as a 2-year-old and was well worth the money.

JOHN B. & J. W. SMITH,
Wellsville, Kansas.

PERCHERON
Stallions, Mares and Fillies

Imported and home bred, for sale at reasonable prices.

W. C. BAUGHMAN, Pulaski, Iowa.

PERCHERON AND BELGIAN.

Stallions. Can show the buyer one stallion or 50, $450 and up. Some weigh 2,100 pounds. For sale, part cash, balance, 1, 2, and 3 years at 6 per cent.
R. I. LITTLE, Route 2. FAIRFAX, IA.



20 Percherons
20 Shires



The Draftiest Lot To Be Sold At Auction This Year

WILL BE SOLD AT

Mitchellville, Ia., March 5

Every two-year-old will weigh better than 1,800 pounds, and the Mature Animals are Proportionately Heavy.

Among the many good ones in the offering are: The Tried Sire, Juan 79511 (86013), 2200 pounds, and the sire of many prize winners; the outstanding yearling, Marvin, weighing 1,600 pounds at 20 months (his dam, Imprudente, was the grand champion mare at Wisconsin State Fair and sold for $2,000); Favorite, the two-year-old futurity winner of the Iowa State Fair (weight 1,800 pounds); Imp. Jarnage, four years, that won second at Des Moines, third at Springfield and fifth at the International as a two-year-old.

Remember this is a clean, desirable offering of real Draft Stallions and Mares, the best sort of breeding and reputation to back them up. You will be welcomed at the sale. Send at once for catalog, mentioning American Breeder, and addressing either

C. F. JONES
Rippey, Iowa

or **R. WILKINSON & SON**
Mitchellville, Iowa

we would suggest that you employ such a man and save time.

717—THREE YEAR OLD SERVICES—I have a seven-eighths Percheron stallion coming three years old. I let him to 16 mares last spring. How many should I let him serve this coming season?—Oklahoma Subscriber.

REPLY—Three services a week, no two services closer than 24 hours, should be the limit for this colt. When we say services, we do not mean mares. The 16 mares you bred last year might have required 50 services, which would practically put your stallion out of business for future colt production.

718—BLACK LEG—One of my neighbors had a coming two year old heifer apparently well in the evening and put her in the barn and the next morning she came out lame in all fours, and before seven that night was dead. We cut her open and the left lung was like it had been burnt and one-half of the heart was full of blood, and also the lung and neck was all black with blood. The other lung was all right. Heifer was fat and with calf. We think it was black leg. What do you think it was?—Wyoming Subscriber.

REPLY—The symptoms you describe are quite similar to those of black leg, but it would be interesting to know whether other young animals in the same herd died with similar symptoms. As a rule, black leg does not often attack animals two years old and over.

719—THE BEST BREED—Would be pleased to have your advice what breed of horses to use in this locality. Have been using grades and pure bred Percheron stallions for years and practically no other breeds have been used here, and here is a fine lot of grade Percheron mares. Would you advise to keep on with the pure bred Percherons or would anything be gained by breeding these grade Percheron mares to pure bred Belgians?—North Dakota Subscriber.

REPLY—Our advice would be to get the best Percheron stallion you can buy and not change the breed unless you can find a better horse in some other breed. The changing of breeds and types has been very injurious. You should be able to find a Percheron stallion to continue with this breed that has all of the qualities necessary for your work. Excellent results have been had by using sires of other breeds on a foundation like this by some breeders, but since you have practically all Percheron foundation we would advise a continuation of the same breed.

720—INJURED STALLION—Please advise me what to do for my five year old stallion that threw himself in the barn about ten months ago and which seems to affect his back. He walks with hind legs straddled out as though he had kidney trouble. When he backs he drags his hind feet and also his left front foot; when he urinates it is with difficulty. I have been feeding alfalfa hay and oats and he has been running in a damp pasture until about two weeks ago when we changed to prairie hay and oats. He keeps fat and is very keen, but cannot mount. Please give us advice as we have no reliable veterinarian in this section.—North Dakota Subscriber.

REPLY—Inasmuch as this injury occurred ten months ago and the animal is yet incapacitated from doing service we fear he has received such an injury of the back, including the spinal cord, that he is permanently injured. A course of one dram of powdered nux vomica on the feed three times a day might do some good but we have little faith in his recovery.

721—AGED STALLION—I have an imported stallion; 12 years old; weight over 1900 pounds in good condition, but he refuses to breed mares the ninth day after foaling. Have no trouble with others. During winter I am feeding him 12 quarts of oats a day and corn fodder, millet hay and barley straw; through breeding season I feed him 18 quarts of oats and prairie hay. What is the cause that he refuses to breed mares that soon after foaling, and what remedy can you give? Do you think the feed I use is all right for him? I bred 96 mares to this horse last season, and as far as I have been able to find out, there is only about 50

(Continued on Page 18.)

Quality *Quality* *Quality*

Genuine Draft Horses

Percheron and Belgian

STALLIONS

The kind you are looking for and the kind your customers will demand. ***Visit our barns*** and pick out a good one. We will make the ***price*** so ***low*** you can't help but buy. Our guarantee ***"Satisfactory Breeding Quality."***

What more could you ask?

GEO. W. SOUERS & SONS

HUNTINGTON, :-: :-: INDIANA

(Our Stallion Service Book for 10c)

HOMEWOOD STOCK FARM

STALLIONS AND MARES

Percherons, Belgians and Shires

OF SIZE AND QUALITY AT PRICES TO SELL THEM.

If in the market for a PAIR OF MATCHED BROOD MARES OF either breed, or a FIRST CLASS STALLION, write us for full particulars. HOMEWOOD is on the main line of I. C. and Big Four Railroads, 23 miles south of Chicago, with suburban trains to and from the city every hour. BARNS IN TOWN.

BELL PHONE HOMEWOOD 58W S. METZ & SONS, Homewood, Illinois

We have 40 head of Percheron and Shire Stallions and Mares at our Branch Barn in Pendleton, Oregon, in charge of M. C. Metz.

STALLION AND JACK

For sale. Imported Percheron stallion (66061) 87364; black; 17 hands high; 8 years old; weight 2,200 pounds; well sloping shoulders; short back and long hip; clean hock and plenty of bone, style and action. Extra good.

Jack is 15 hands; weight 1,100 pounds; 5 years old; bone like a draft horse; lots of style and action. Sure breeder and quick server. Colts to show from both animals.

Adam Becker & Son, Merlden, Kansas.

Percherons

For sale. One imported, nine years old; weighs 1850; black. Two coming three; black and grey; weight 1850 and 1800. Will make a ton each. Buy them of the farmer and breeder.

CHAS. E. WARREN,
Sutherland, Iowa.

CLOVER LEAF FARM
PERCHERONS

Imported mares in foal, and yearling stallions and weanling stud colts for sale. Come and see them.

Peter J. Tisserat

Perry, Dallas County, Iowa.

PERCHERONS

I now have on hand a very choice lot of good young stallions and mares of all ages that I am offering at bargain prices. Terms to suit. Will also furnish horses of all kinds on orders from one to car load lots. Barn in town.

A. R. IVES, Delavan, Wis.



FISHER & WALKER Importers and Breeders of **PERCHERON HORSES** and dealers in Standard Bred Horses, Tennessee and Kentucky Jacks.

Main barn, 1215 E. Missouri St., Evansville, Ind. Branch barn, Clarksburg, W. Va.

All stock guaranteed and priced right and terms to suit customer.

References, Banker's National Bank.

Imported Percheron Stallion

For sale. We have a Percheron stallion at Huntley, Mont.; weight over a ton; good breeder; a good horse in every respect; black as coal. Bred over 80 mares this year at $20 to insure colt to stand and suck. Will sell him cheap. Write

FIRST BANK OF THAYER, Thayer, Ia.

PERCHERONS.

Young Stallions—Brood Mares.

Stallions coming 2 to 4 years; mares all ages. A big, rugged, drafty, heavy boned lot, with plenty of quality and action. Blacks and greys. A large per cent sired by our herd horse, Superior 40605; weight 2300. Our horses are roughing it and are NOT overloaded with fat. JAMES LOONAN & SON, WATERLOO, IA. Farm 3 miles from Hudson; 8 miles from Waterloo.

STUD COLTS

For sale. Coming twos; their bone, breeding and quality make them fit for a herd horse. Each will weigh a ton at maturity. Will sell cheap. All recorded in P. S. A. and sound; weighing 1,500 at 20 months in growing condition. $500 for choice. Mention this paper.

AMOS HANSON, Collins, Iowa.

PERCHERONS AND BELGIANS.

54 imported and home bred stallions and mares. New importation in September of big bone 2 and 3-year-olds. Weight, 2100 pounds. Look us up. We can suit you. Reference, any bank in Jones county. WM. A. HALE, PROP. GRAND VIEW FARMS, ANAMOSA, IA. 25 miles northeast Cedar Rapids.

PERCHERON STALLIONS.

A choice pair of two year olds; blacks; plenty of size and bone.

A. M. DULL & SON, Washington, Kas.

Pure Bred Percheron Mares

For sale; in foal to prize winning stallion; registered in P. S. A.

C. P. O'DONNELL, Winchester, Ill.

PERCHERONS

For sale. Two Besique stallions; blacks; coming 2 and 3 years old; sound. Also a few mares.

J. B. WHITAKER, Forest City, Ill.

Forms for Concrete Work.

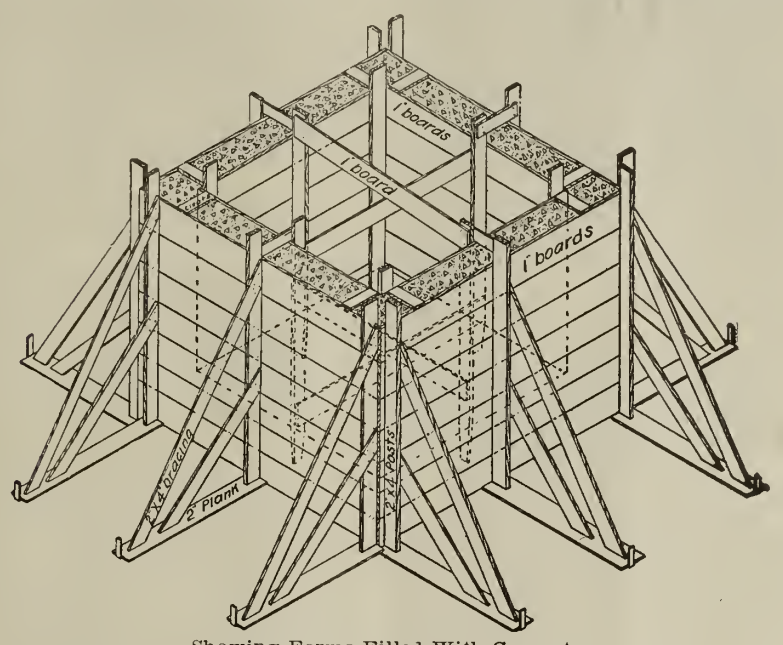
Since freshly mixed concrete is a plastic material, forms of some kind are necessary to hold it in place and in shape until the cement sets up and the concrete becomes hard. Lumber, though expensive, is the material most commonly used. By exercising his natural ingenuity and customary care in the matter of construction forms, the farmer has built so cheaply of concrete that his cost statements are frequently doubted by the builder in the city.

Much of the work done on the farm requires almost no forms at all. In this class are walks, floors in buildings, and feeding floors.

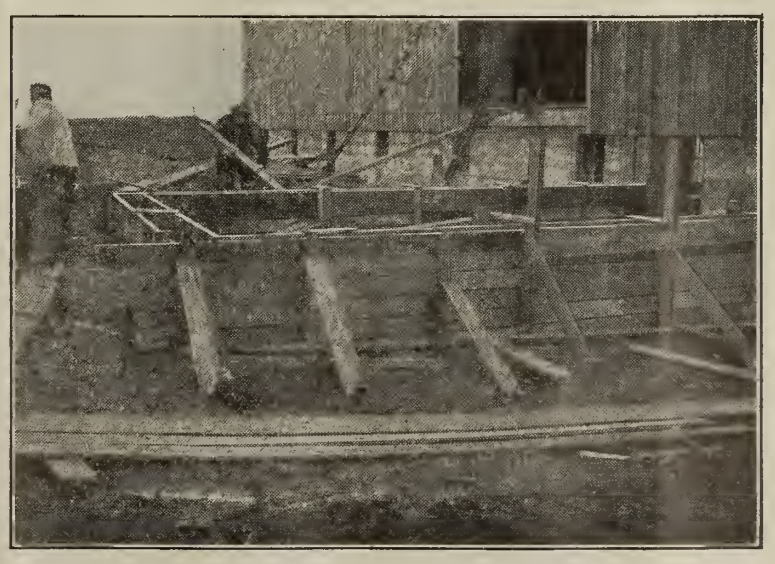
The first requisite of good forms is that they should be tight so that the liquid cement may not run out between cracks, cause pockets or hollows and thus ruin the looks of the work as well as decrease its strength. Consequently straight boards are most desirable unless one chooses to fill gaping cracks with stiff clay and tack strips over them. Dressed lumber is usually straightest and yields a neater finish to the concrete. But for ordinary purposes rough lumber is sufficiently good. Naturally the siding must he stiff enough not to hulge out of shape when the forms are first filled with concrete. This does not mean that very heavy siding is necessary. In fact, one-inch boards are sufficiently strong. The hulging may be prevented by setting two by four inch studding from 20 to 30 inches apart according to the thickness of siding boards or sheathing used.

The thoughtless cutting of boards into short lengths means a waste of lumber and a useless increase in the cost of concrete. Unnecessary nailing not only calls for more nails but adds to the difficulty of removing and the danger of splitting and ruining the boards. The reason that concrete is so unusually cheap for the farmer is that he plans his forms to spoil as little lumber as possible and he finds a use for all of the lumber after it has served to hold the concrete in place. In this way the material for forms costs practically nothing.

Most concrete work on the farm is built of what is known as the "box form," which, with variations, consists of one box within another between which the concrete walls are molded. Such forms are used especially for walls of buildings, tanks and troughs. Ordinarily the studding need not be cut in lengths equal to the height of the wall; it may without inconvenience be allowed to project above the top of the siding. Nor does it need to he sharpened (and later battered up at the other end) for driving into the ground. There is a quicker, easier and cheaper way. Set the ends of the studding on the ground and hold them in their proper position by a timber. called a "liner," lying on the ground against them; or "toe-nail" the ends of the studding to a plate which will serve the same purpose. Stakes driven into the ground and against the plates or liners will fix



Showing Forms Filled With Concrete.



Showing Form With Boards Projecting Beyond the Corner.

IMPORTED BLACK PERCHERON STALLION FOR SALE CHEAP.

Gravina 50728 (71374); sire Bon Marche 45869 (55741) by Casino 27830 (45462); dam Rustique (50456) by Ooltaique 25159 (43193); second dam Pella (40342) by Francais 15747 (20374). Gravina is a sure foal getter; colts to show; 7 years old; weighs 1,750 pounds in breeding condition. Reason for selling: Want to dissolve company. Might take registered mare or fillies in trade, but no stallion.

HAMANN, SACHS & JAGORO.
Aug. Hamann, Mgr.,
Danvers, Minn. Route 2.

TWO REGISTERED STALLIONS

for sale. The Percheron stallion, Corbon (51151), is a dark grey; 16¾ hands high; weighs 1900; is a sure breeder; colts to show.

Also a Standard bred trotting stallion, Ralph Forest, 56816; will be 3 years old May 2d; weighs 1250 pounds. Not broke to harness. He served 4 mares last season; 3 are in foal; has a fine disposition and size enough for any work.

R. N. MONTGOMERY, Prop.,
Prairie Valley Stock Farm,
Rich Hill, Mo. Route 5.

I. C. EVANS, Troy, Iowa

IMPORTED AND AMERICAN BRED PERCHERON STALLIONS AND

mares for sale at right prices. Recorded in Percheron Society of America. If in need of a good stallion or mare, you had better get busy, and buy of me. I will guarantee square dealing with the right kind of stallions and mares to satisfy you, with quality and weight.

For Sale, Percherons

Two black mares two years old, matched. 1 gray mare two years old. All registered. Also 3 weanling stud colts. Eligible to registry.

FRANK DAVIDSON, Breeder.

Ruskin, Nuckolls County, Nebraska.

Percherons and Belgians

Home raised, Percheron and Belgian stallions for sale. One coming four years old; two coming two years old; one coming one year old. Three Percherons and one Belgian; good colors and size; will mature into ton horses.

W. R. HAWKINS,
Ravenna, Buffalo County, Neb.

PERCHERON STALLIONS

FOR SALE, from weanlings to 4 years old. All of my own breeding, including the prize winners at the Illinois State Fair. Have dams and sire to show. Buy from the breeder and save money.

J. P. DETWEILER, Congerville, Ill.
Between Bloomington and Peoria,
on L. E. & W. R. R.

FOR SALE.

Two imported Percheron stallions; one black; six years old; weight 1,900 pounds. One gray; 7 years old; weight 2,000 pounds. Both are sound and sure foal getters. Can see colts.

One grade stallion, 2 years old.

H. M. RIDER AND F. V. THOM,
Rushmore, Minnesota.

STALLION FOR SALE

One seven-eights Percheron stallion; 8 years old; color gray; weight 1600. A known breeder and gets colts of good quality. Is a compact built horse of plenty of bone and style and action. A fine individual and sound. Address,

Marquis A. Churchill, Randall, Minn., Route 2.

WILL SWAP MY PERCHERON stallion for one equally as good, or will sell right. He is the best of black; 9 years old; a good breeder and sure; well broken to all kinds of harness work and has the staying qualities of a thoroughbred. Won first over the grand champion of the St. Louis Exposition.

THOS. S. WORK, Fort Morgan, Colo.

IMPORTED PERCHERON STALLION.

For sale. An extra good one; coming 10 years old; black; guaranteed O. K. in every way.

D. B. JENKINS, Jewell, Kan.

PERCHERON STALLIONS AND MARES

For sale, sired by the great horse, Brilliant D. 45336.

W. W. WATERS,
West Liberty, Iowa. Route 4.

PERCHERON, BELGIAN, SHIER AND HACKNEY STALLIONS AND MARES

Imported and American-bred; 2 to 4 years old. Prices on most all $700 to $1,000.
Lew W. Cochran, Crawfordsville, Ind.
Office 205 Ben Hur Bldg.

75-PERCHERONS-75

Thoroughly acclimated. Young; good colors and very high class.
CRANDALL & DANFORTH,
Randolph, Minn.

IMPORTED AND HOME BRED STALLIONS AND MARES.

PERCHERONS, BELGIANS, SHIRES.
The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perche this year. See what we have before buying elsewhere. **Address Hart Bros., Osceola, Iowa.**

BARGAINS, IF SOLD BEFORE MAR. 1.
One Percheron stallion; black; 10 years old; 1900 pounds. One Symboler stud colt, as good as they make 'em; bay; 2 years old; 15¾ hands; 1100 pounds.
One black jack with white points; 10 years old; 900 pounds; sure and quick server. All registered.
F. E. KNOWLES,
255 North Market St., Wichita, Kans.

FOR SALE CHEAP.

If taken soon, one black Percheron stallion; weight, 1,700.
One black jack; 14½ hands high; 9½ inch bone.
One dark grey jack; 15½ hands high; 9 inch bone.
E. C. Garrett, Harrisonville, Mo. Rte 1.

PERCHERONS, BELGIANS AND GERMAN COACH MARES AND STALLIONS
of all ages for sale. I have recently taken over the entire stock of horses formerly owned by the firm of Ives & Bellman and can furnish patrons with first-class breeding stock of the foregoing breeds. Have a fine lot of 2 year old and older stallions to select from. Address,
WILL BELLMAN, R. 1., Delavan, Wis.

A Bargain

I am forced to sell at a loss a fine Percheron stallion that has show quality, and the very best of breeding. His photograph and breeding will gladly be sent to any interested party. Farm is 26 miles from Chicago.
L. E. TOMPKINS, Palatine, Ill.

PERCHERON STALLIONS AND MARES

For Sale. All ages; registered; good bone and lots of quality; weight, 1700 to 2100 pounds. Bred and priced right. Why not buy your next stallion from a breeder and save dealers' profit. Twenty years a breeder.
R. F. D. No. 4
C. ROHRS, NAPOLEON, OHIO

4 GOOD PERCHERON STALLIONS.
Two Are Imported; Two Home Bred.
And all ready for service. These are for sale at reasonable prices. I have also for sale several younger stallions and some imported and American bred mares and fillies, all good.
MANUEL CROSS, Adrian, Minn.

PERCHERON STALLION
For sale. Recorded; coming 3 years old; sound; sire's weight 2,200 pounds; dam's weight 2,000. I also have a Percheron stud colt under one year old for sale.
C. D. CUTTER, Coin, Iowa.

I WILL TRADE

a nice, smooth, half section, improved, for Percheron and Shire stallions. For particulars address owner,
JOHN HEID, Flagler, Colo.

MAPLEWOOD PERCHERONS.
A choice selection of stallions and mares. Buy them direct from the farmer and breeder at farmer's prices.
C. G. ANDERSON,
Hector, Minn. R. 5. C. M. & St. P. R. R.

them firmly in place. The studding may be held plumb by bracing it with odds and ends running from the top to stakes driven into the ground a few feet away from the form. If the forms are so high and will be filled so rapidly as to render possible the springing of the studding, tie the opposite pieces together by means of bailing or other pliable wire passed through the joints in the siding. Space the forms at the top by means of cross cleats.

For the outside wall of box forms boards of full length need not be cut at all. The extra length may be allowed to extend beyond the corners. This saving cannot always be affected with the inner wall, yet odd pieces of boards may often be used in such a way as to prevent useless cutting. In nailing on the siding, arrange the boards so that all end joints will not be made on the same upright. If the lumber is crooked, draw the boards together so as to prevent cracks. Since the siding is generally between the studding and the concrete, heavy nailing is not needed to hold it in place until the concrete comes against it. Often cleats, clamps, or screws are used to save the lumber and to render easier the removal of the forms. The forms should always be planned with this end in view. In placing the concrete avoid unnecessary lifting by leaving off a few of the boards at the top of the form until they are needed. However, if chips or blocks fall inside the forms, carefully remove them before proceeding with the work.

See that the forms are lined up properly before beginning to fill them as they must not be disturbed after the concrete is in place.

To Clean Forms and Protect "Curing" Concrete.

If new forms are wet, before the concrete is placed, and allowed to remain in position until it has thoroughly set, bits of concrete will seldom stick to them. For very particular work, or where forms are to be used more than once, it is advisable to coat them, previous to erection, with soft soap or oil. Linseed, black or cylinder oil is suitable, but kerosene is not good. Upon taking down the forms immediately clean off all bits of concrete clinging to them. For this purpose a short-handled hoe is convenient, but it must be used with care so as not to gouge the wood.

All other things being equal, the strength of concrete is dependent upon its density or compactness. Where possible, the easiest way to render concrete dense is by mixing and placing it wet. For very wet concrete the forms must be tight so that the liquid cement cannot escape. To give a neat finish to the surfaces, which will later be exposed, force the larger stones back from the outside by running a straight spade or a wooden paddle down in the concrete next to the wall forms and working it back and forth.

It frequently happens that very wet concrete cannot be used. To make a drier mix deuse and strong, tamp or ram it into place with a heavy wooden or iron tamper.

In a way, the successful making of hay and concrete are very much alike—both must be well cured. Exposed surfaces of freshly placed concrete should be shaded to protect them from rain, dust and the hot rays of the sun. Freezing injures freshly placed concrete. Hot water and salt are sometimes used to counteract the frost action; but, on the whole, it is better to attempt no outside work in winter. During the early months of spring and fall see that no frozen sand, gravel or rock is used in the work. In summer ordinary forms, for walls supporting no loads, may be removed after the concrete is 3 days old, but in cooler weather they should not be touched short of 5 days.

It is the attention to the details which makes farming or any business a success. The same principle holds true of concrete work.

DUNHAMS PERCHERONS



are today, as for the past 50 years, the BEST, as shown conclusively at the fall fairs and International.

We now have at Oaklawn a most excellent and uniform lot of stallions and mares, having just recently received a LARGE NEW IMPORTATION.

If you want the best—stallions or mares—visit Oaklawn. Prices reasonable—guarantee the most liberal. Send for free catalog.

DUNHAMS
WAYNE, DU PAGE COUNTY, ILLINOIS

IMPORTED PERCHERON STALLIONS

Each year I select 35 or 40 horses in France, so good and so correct in type, that any one of them will prove a great benefit to the man who buys it.
At the shows of the Southwest circuit, our horses won every championship and every group of five in 1913, as they have done most of the past five years. Our horses are handsome; our contract just and right; our insurance the best. Come and see me.
PERCHERON IMPORTING CO.,
CHAS. R. KIRK, Mgr. South St. Joseph, Mo.



For Sale

the best lot of home-bred and imported PERCHERON and BELGIAN stalions and mares in the West for the money. We import most of our stock as yearlings, hence we can sell you a BETTER horse or mare for less money than those that do not import so young. FORTY YE[illegible] in the business. ONE HUNDRED stallions and ONE HUNDRED mares to sell. Some of the best kept at this barn at all times. Two to seven years old. Address—
SINGMASTER & WALKER
BARN "S" STOCKYARDS SIOUX CITY, IOWA.

QUESTIONS AND ANSWERS.
(Continued from Page 16.)

mares with foal. He never bred more than two mares a day, and through the whole season he made 176 services. Do you think I could make any improvement by using an impregnator next season, and if so, what kind would you recommend? Is it any trick to learn to use an impregnator?—North Dakota Subscriber.

REPLY—Your stallion has probably been kicked by one of these mares, and he may be expecting it again, so we would suggest that you get a substantial set of hobbles and put on these nine-day mares and then lead up another mare to get him ready. Handle him quietly. If this does not get results, use the same blanket on your mares during the service. This will convey to him a different scent so that he will not be so likely to refuse. Build a little pen in front of the mare where the colt can be kept in plain view of the mare and not so noticeable to the stallion. There may be other causes for this which we are not familiar with. Your winter feed is excellent, provided your corn fodder does not have any dangerous qualities in it. All the corn fodder for horses should be well developed and well cured. Before the breeding season starts, we would advise changing your feed to oats and prairie hay or some bran, alfalfa or clover. It should be a little more laxative unless you are giving him an abundance of road work. Evidently you have not examined your mares very closely. The foals compared with the number of services do not make a very good showing. This may have been the fault of the mares in your locality, but we are of the opinion that you have made natural services on mares that should have been treated before being bred. Some of these mares could have been benefited by using the capsule system. Your stallion will not last much longer at such strenuous work. This may be the difficulty with this horse now. It is not difficult for the average man to learn to use an impregnator or the capsule system.

722—ORCHITIS—Will you please tell me what could have been the trouble with a boar that had only bred ten

PERCHERONS FOR SALE.

I am offering an extra fine lot of coming two, three and four year old stallions for sale. Large draft kind with large clean bone. Also some extra good mares in foal. Will be priced worth the money.

E. D. SEAMANS,
Salem, Henry County, Route 1, Iowa.

HIGHLAND VIEW STOCK FARM DISPERSION SALE

will be held at Kittanning, Pa., Wednesday, March 4th, 1914, at 10 a. m., rain or shine. 40 head of the best imported and American bred registered Percheron and Belgian stallions and mares will be offered in this sale. Write to
O. N. WILSON, Prop., Kittanning, Pa.

7 SHIRE AND PERCHERON STALLIONS.

Sire and dam of Shires, imported by Trumans' Pioneer Stud Farm; dam bred by Thomas Gee of the famous Wrydelands Stud Farm of Thorney, England. Prices $250 to $650. Will meet train at Wakefield if notified in time.
James Auld, Wakefield, Clay Co., Kans. Route 1.

PURE BRED PERCHERON STALLION

For sale. Black, with star in forehead; 5 years old; sound; 16.3 hands; weight 1800 pounds; good disposition; a good breeder and a sure foal getter; broke to work; colts to show. Have not time to take care of him, reason for selling. Will price him right.
CHAS. YOUNG, Taylorville, Ill., Route 2

PERCHERONS
Mares and Colts.
25 head imported and American bred. Have six two year olds that weigh 3,000 to the team; dark greys.
JOHN PECK, Lexington, Ill.

3 GOOD PERCHERON STALLIONS.
One black; 2-year-old; extra; 1900 pounds. One dapple grey; 4 years old; weight, 2040 pounds. One black grey; 2 years old; 1895 pounds. F. A. McCABE, Box 2, BLUE MOUND, KANS.

FOR SALE

Choice weanling Percheron filly. Imported dam.
L. W. MILLS, Racine, Wis.

WOLF BROTHERS

Imported & American Bred Percherons and Belgians

Note winnings of our horses at two of the leading Western shows.

NEBRASKA STATE FAIR, 1913.

Percheron stallions open class: First, second and third in two year olds. Junior championship and first for best five stallions.

Percheron mares open class: First in three year olds and Grand champion mare was imported and sold by us.

Belgian stallions: First in yearlings; first, second and fourth in two year olds; first, third and fourth in three year olds; second in four year olds and over. Senior champion and Junior champion stallions.

National Western Live Stock Show at Denver, Colo.: Percheron stallions open class: Third in yearlings; first and third in two year olds; first in three year olds; first for five best stallions and reserve champion Percheron mares; second and third in two year olds; second in yearlings.

Belgian stallions: First in yearlings; first and second in two year olds; first and second in three year olds; Senior champion and Junior champion stallions.

These horses are all for sale at reasonable prices.

ALBION, BOONE COUNTY, NEBRASKA.

125 Head of Stallions and Mares

Cheapest Place in America

TO BUY. A DOLLAR SAVED IS TWO DOLLARS EARNED. THIS IS WHAT WE DO FOR YOU.

Home Bred Stallions as low as $300. Imported horses at prices unprecedented. Two-year-olds from 1,650 to 2,000 pounds, with a world of bone and quality.

Forty head of real brood mares; big bone, rugged pairs of matched blacks, grays and bays, all bred and safe in foal to our herd stallion.

We more than meet competition—we create it.

L. R. Wiley, Route 9, Emporia, Kas

BELGIAN EMPORIUM OF AMERICA



Largest collection of Belgian draft horses on earth. Also 20 choice Percheron stallions. The fall importation of 100 head, the second importation for 1913 swells the number on hand to 175 stallions, mares and colts. Many prize winners; many descendants of prize winners. All choice animals. We are farmers and stock breeders; twenty-eighth year in the Belgian horse business. Each year adds to our strength, and now we can defy competition in quality, quantity and prices.

Four farms, all adjoining; 7 large barns.

Write for free illustrated catalogue.

H. LEFEBURE & SONS, Fairfax, Linn Co., Ia.

(Eight Miles from Cedar Rapids.)



WE ARE IMPORTERS

of the best blood of Europe in

BELGIAN AND PERCHERON STALLIONS AND MARES

Importation made regularly and a large selection kept on hand in season. Only horses of **high quality** handled. Prices and terms **right.** It will pay you to see our horses before buying. Favorable terms to responsible dealers. Our 1914 calendar is now ready for distribution. Write for full particulars.

W. A. LANG & CO.,

Greeley, Delaware County, Iowa

BLUE VALLEY STOCK FARM



Largest Importers and Breeders of High Class Belgian Draft Horses in the West. Importation of Belgian stallions and mares arrived September 7th. Many of our horses were medal-winners at the foreign shows this year; all are sound, acclimated and ready for service. Lowest prices and safest guarantee of any firm in the business.

Also a few extra good Percherons. Write us, always mentioning the American Breeder.

W. H. BAYLESS & CO. Blue Mound, Linn County, Kans.

IMPORTED DRAFT STALLIONS FOR SALE.

Four extra good Belgians; ages 6 to 7; average weight 2,300. One good French draft; 4 years old; weight 2,000. This is an extra good one. These have been used in our stud since imported, and we have many fine colts their gets, to show, as well as a large number of mares in foal, proving them splendid sires.

We are making a change in our business operations, and will offer these stallions, quality considered, at remarkable prices. If interested write or come and see them. Our barns are but a mile from the station, where we will meet you.

We make a specialty of buying stallions or pure bred mares on orders. If your community is in need of a good draft stallion we want to hear from you. All records are complete on each horse.

R. J. CRAWFORD & SON, MILES, IOWA. PHONE 163, MILES.

We Write Life Insurance on Horses.

PERCHERON STALLIONS

For sale. Eight head of two year old stallions (coming 3); one 5 year old stallion, also yearlings and weanlings. All recorded Percheron Society of America. Blacks and greys. Good individuals and priced where you can afford to buy.

WRIGHT BROS.,

Mt. Pleasant, Henry County, Iowa.

A FEW STRICTLY GOOD BELGIAN AND PERCHERON Stallions and Mares for Sale.

Last fall, showing three stallions and one mare and colt, at two state fairs and the "Royal," I won 25 firsts and championship ribbons, 3 seconds, 2 gold medals and 3 silver medals.

Some of these winners, and more of the same sort, are for sale. I'll use what are not sold, for they are all high class and right in every way. Come and see for yourself.

LEW JONES, - Alma, Knns.

BELGIAN STALLION

For sale. Nine months old; weight 725 pounds; color sorrel. Out of imported sire and dam. Register Number 8037. Real chunky, close made and sound. Price $200, cash, registered and transfered. **Wilbur L. Moberly, Mt. Orab, Ohio.**

Aged, Imported Belgian Stallion, $250.

One coming three, imported in dam, not well grown, $200. Two young and one aged registered saddle stallion; aged horse a son of Forest King. Either one $200.

A 15 months old registered, tuberculin tested Guernsey bull calf, $50, f. o.. b.. here.. **S. D. Henry, Excelsior Springs, Mo.**

Want to Lease

Good Belgian, Percheron or Shire stallion on the halves. Address BOX 65, TINGLEY, IOWA.

IMPORTED BELGIAN STALLION

Six years old; dark bay-roan; weighs a ton. Good individual; right in every respect. Selling him cheap.

FIRST BANK OF THAYER, Thayer, Ia.

ows this season; two bred same day en days ago. All seemed healthy. Boar on morning of tenth day after breeding would not eat during day; noticed his testicles swollen ;also sheath; 12th day lost power of hind quarters and died 13th day. Please tell me what can be done in such a case.—South Dakota Subscriber.

REPLY—It is evident your boar had a severe attack of orchitis which might have been due to some violent external injury, or may have been contracted from service of one of the sows. The fact that no losses are reported from the other stock rather precludes death from some infectious disease like cholera.

723—FEEDING A YOUNG JACK—I wish to know how is the best way to feed a young jack so that he will be sure. I have been feeding him oats and alfalfa hay night and morning and letting him run all around. Should I feed hay instead of alfalfa now as it is nearing the season. I also want to know your advice in regard to how many mares I would breed and how far apart should the services be? This jack will be three years old the 26th day of June, 1914. I bred two mares last spring and he worked as good as any horse.—Kansas Subscriber.

REPLY—Oats with alfalfa hay one-third, prairie hay two-thirds should give this young jack good results and the change should be made soon. Roughness is a large proportion of the feed for jacks. Make your change gradually. He may not take particularly to the prairie hay or timothy but by mixing it up well you should have little difficulty. Give him plenty of exercise but be sure to keep all jennets, mules or other jacks far enough away so that he cannot see or smell them. Two services one week and three the next, no two closer than 24 hours, should give you good results. Keep him away from all teasing pens or where breeding has been done. Do not let him smell where mares have urinated.

724—UNTHRIFTY JACK—Last June I shipped a jack from Kentucky. He was coming two years old in July and I paid $900 for him in Kentucky. He was down in the crate when he arrived and has never seemed to get fat since, although I have taken the best care of him that I know how. He has been in a large, roomy barn this winter; loose at night and out in the field with a filly in day time unless too cold. We have had a splendid winter and there has been few days too cold to put him out. I have fed him anything he would eat, but the only grain he will eat is oats. He will not eat ground feed; will not drink out of the creek; we have to water him out of a bucket and warm the water. I am dipping him today with International dip for the fourth time this winter, and found a few lice on him still. I also give him a medicated salt made at Lebanon, Ind. This was recommended to me by a veterinarian and appears to be good for horses. This is kept where the jack can get it and he appears to like it. I do not know how to make him thrive any better. He is not really poor, but it looks to me that he should do better with the care he gets. He is supposed to be an extra good one. Is 61 inches high and a very heavy bone. I do not know much about jacks not having owned one before, but am an old horse breeder and am trying the jack because horses do not seem to have been healthy of late years and thought mules might do better. I had a veterinarian here once and he said they had lymphagalis or some such thing, but they do not seem to do much better after he treated them; not really sick, but never seem right. I have some very good ones and like to raise them, but of late years with the wolves and bad health it goes pretty slow. I handle more sheep and cattle than horses, but keep about 100 horses, and would like very much to hear from you.—Montana Subscriber.

REPLY—You must remember that the jack in question is a long ways from home. In other words, the matter of a change in climate may have its influence on him. If your statement is correct that horses do not do well in your locality then it may be that the same remarks will apply to jacks. Your jack is still of that age where he is perhaps making more growth than putting on fat. Continue to give him good care and by all means keep after the lice, and we predict by another year you will feel better about your jack.

725—COTTONSEED MEAL FOR BREEDING STOCK — Is cottonseed meal and hulls and shorts a good feed for a horse and jack? My horse and jack likes it just fine.—Texas Subscriber.

REPLY—Feeding cottonseed meal has been demonstrated successfully by its use in small quantities in balancing a corn ration, but this only with work horses. Until its use has become more general and its effects better understood, we would not advise the use of cottonseed meal for breeding stock. This is a subject on which our Southern subscribers can give us some light in the near future. Cottonseed hulls, ground fine like shorts, probably are safe, but have little food value. If no feeds other than the ones you mention, are available, you

Belgians Below Competition

Among them are state fair champions and first prize winners. Will guarantee to sell a better horse for the money than any one in the business. No better or safer guarantee put up by any firm. Reference, any bank in Harpen county. Write



DAVID COOPER & SONS,
Harper Co. Freeport, Kans.

IRVINEDALE FARMS

Belgian and Percheron Stallions and Mares. High Class Animals Always on Hands.

Farm at Ankeny, 10 miles north of Des Moines on C. & N. W. R. R. and Ft. Dodge, D. M. & Southern Interurban. Will meet trains if notified.

CHAS. IRVINE, ANKENY, IOWA.

IMPORTED BELGIAN STALLION.

For sale. Chestnut; weight 2000; age 10; sound; lots of bone and quality; a flash mover and a great breeder. Must change him on account of his fillies. Colts to show and plenty of mares in foal to him. Will take $700 cash, or will trade for one as good. Black Percheron preferred. This is a great horse in the right place and some other breeder is in the same fix that I am with a good one. **Box 369, LOCKPORT, ILLINOIS.**

IMPORTED AND AMERICAN BRED BELGIAN MARES AND STALLIONS.

I purchased these stallions and mares in Belgium and imported them myself. I have kept them and acclimated them on my farm. No extra expense upon them. I can sell them cheaper than you can buy them anywhere in America. Come and see for yourself.

WILL H. ADE, KENTLAND, IND.

REGISTERED BELGIAN STALLIONS.

From one to three years old; from imported sires and dams. Good ones. Also one 6-year-old imported Belgian Stallion, weight 2,000 lbs. A prize winner; sound and good foal getter. Lots of colts to show. Will price them right. No trade.

E. A. SILVERTHORN,
Rossville, Ind. Route 1.

BELGIAN, SHIRE AND PERCHERON STALLIONS

and mares, also Standard bred stallions and mares, $200 and up. **E. P. Hamilton & Sons, Garden Grove, Ia.** (Mention this paper). 23 miles S. W. of Chariton, Ia., 82 miles south of Des Moines, Ia., at Leroy.

--BELGIANS--

A carload of imported and home bred Belgian stallions and mares; all ages. Matured horses weigh from 1800 to 2200; with plenty of bone and quality, at prices to sell.

ED BOLL, JR., Scribner, Neb., Rte. 5.

FOR SALE

At a Bargain

One imported Belgian; one imported German Coach; two American bred Percherons. All good, sound, heavy horses.

ALF S. FROILAND, Astoria, So. Dak.

Imported Belgians and Percherons

Nine stallions of breeding age, five home bred stallion colts; 30 imported mares coming one and two years old. All as good as money could buy in France and Belgium. Will be sold at very small profits.

BROWN & AYRES, Hillsboro, Ohio

Imported Belgian Stallion

At Public Auction.

Nine years; sound and right; a good breeder; has no bad habits; is easy to handle. Also 7 head of horses including 3 Belgian mares bred to this stallion; 10 Holstein heifers. Sold at public auction, Wednesday, February 25, 1914.

E. D. CHENEY, Prop., Hillsdale, Mich.

CLOSING OUT SALE.

Two imported Belgian stallions, 6 years old; bay; 2000 and 2100 pounds; one imported Percheron stallion, 11 years old; black. One home bred Percheron stallion 2 years old; black-grey. Also some registered fillies. These horses are all sound and priced to sell.

HATTEBERG BROS., R. 4, Paxton, Ill.

could use them with perfect safety by mixing five pounds of cottonseed meal with 100 pounds of shorts, and giving your animals their rations from this combination, mixed with three or four pounds for each animal, of clean, bright hay that had been chopped fine and moistened.

726—LOUSY JACK—I have a jack, bought from Kentucky about one year ago. Was lousy when I got him; as he had long hair could not reach them, but thought when he shedded off I would not have any more lice, but I find he is very lousy now. How can I get rid of them and keep them off? —Louisiana Subscriber.

REPLY—In order to keep an animal free from lice one must not only apply something to the animal that will kill the parasites, but must clean up the stall in which he is kept. All bedding and refuse must be removed to a safe place and burned and the entire interior saturated with a one per cent creolin solution. The wood work should then receive a coat of thin white wash. The animal should be bathed in a one per cent creolin solution every ten days until lice and eggs have disappeared.

727—A SMALL JACK—I keep a stallion and jack. My stallion is a grade or cross breed; is three-quarter Percheron and one-fourth Shire. He stands 18 hands and weighs 2,470 pounds; is as active as a cat and as nicely built as a pony. My jack is quite small; was from a Catalonian jennet and a mammoth jack. His sire weighed 1,200 and was 16 hands high. How will he work on mares from this big horse? Mares will weigh from 1,200 to 1,800 pounds. Would you sell him and get a big jack. I have never used him yet, but have seen some of his mules sell for $200.—Oklahoma Subscriber.

REPLY—Your jack may sire all high class mules, but in all probability he will sire a few good ones and many bad ones. His dam must have been a very small jennet or he would have been larger. That being the case his power to produce big animals would be divided between a small jennet and a big jack. Unless you are absolutely sure that all of his mules have been big you cannot afford to keep him and lose the use of those big, fine mares. The first crop of colts might pay for a better jack.

728—MARE FAILS TO GIVE MILK—I have a mare, ten years old, which has raised two colts and another was born last spring; the mare having no milk and never did have. She was fed on oats, hay and corn and was fat. The other two colts she suckled good. She is due to foal in about two months. The colt died when it was two days old from kidney trouble. If she shows she is not going to make any bag this time how had I best feed her, and is there any way to bring her back to her milk? How had I best start the colt if we have to feed it?—Missouri Subscriber.

REPLY—Your mare may return to her normal condition again at this foaling. Keep her in moderate condition, but do not feed much corn. Oats and bran with a little oil meal would be better for a grain diet, with some alfalfa or good clover given along with the hay ration. If she can be given exercise in a blue grass pasture she will get enough green feed to help in this direction. The colt can in any emergency, be raised by hand on cow's milk. The cow's milk should be diluted with water and a little lime water added and should be fed at body temperature.

729—MARES LOSE THEIR COLTS—I have a Percheron stallion, four years old last May. I traveled the horse last season and bred 75 mares between April 15 and August 15, of which 50 at least are safe in foal. Three of these mares that I know of have lost their colts from three to four months before foaling time and they claim their mares haven't been hurt pulling or anything like that. Is it the fault of the stallion, as some people seem to think?—Illinois Subscriber.

REPLY—You undoubtedly have made too many services with this stallion for his age. Too many services does have some effect on the colts, as a rule. However, this difficulty is usually with the mares and their management. In nearly every case the mares have not been handled properly. There are so many things that can happen to mares carrying foals that we would not venture a guess as which one was the difficulty in this case.

730—MALIGNANT WART—I have a horse that has a wart between the pastern joint and hoof as large as a man's fist which I cannot kill. I have burned with caustic potash and hot iron, but the wart always comes back. we are bothered a great deal out here with warts on horses. Can you give me something to kill them and the cause for them coming on horses?—Wyoming Subscriber.

REPLY—These malignant growths are frequently cancerous developments in reality and you should have some competent surgeon take charge of this case before your animal becomes worthless from the extension of the growth to the more vital structures underneath. It will be easy to have a joint involved if this growth is not soon arrested.

731—NUMBER OF COLTS FROM A JACK—Are jacks limited to 30 or 40 mules each season regardless of capsules or how many bred, and are they, as a rule, as fertile as the average horse?—Illinois Subscriber.

REPLY—At each discharge of the jack there are millions of spermatozoa, only one of these is required to fertilize the egg of the female. This semen may be divided and fertilize a very large number of mares from a single service of the jack. Jacks are not considered as sure with mares as stallions because the progeny is a hybrid, but there are more good serving jacks that discharge the spermatozoa into the uterus than stallions, and they make, as a rule, a more perfect service, so that in the end the difference in the per cent of foals must not be very large.

732—INJURED FILLY—I have a filly which two years ago got a light wire cut under the pastern joint on the right hind foot, which was not serious enough at the time to pay any attention to, but as it was in winter time seemed to not heal until the coming summer, when the wire cut seemed to break and seemingly where the hoof starts from the hair on the foot is now a crack about a quarter of an inch deep. This crack has undoubtedly been there for some time, or ever since she was cut on the wire, as there is hair growing in the crack and seems to keep it from healing. When I first began to care for this only a short while past, there seemed to be a kind of a mattery substance covering the heel of foot and had a horrible smell, but since caring for this it seems to not be so bad. Put peroxide of hydrogen in the crack and have kept the place oiled or greased and used Balsam of Myrrh. But these hairs being in there don't seem to let it heal up or I am not treating it right. The hoof is some smaller than the other and is awfully hard excepting the inside of the hoof which is brittle a chalk. This hoof grows out longe than the other and cause her to lim or hop in that leg. I am somewha puzzled in knowing what the troub is and how to treat it. Will you kin ly advise me?—Wyoming Subscriber

REPLY—You are greatly in need a good veterinary surgeon in th case, inasmuch as it appears that th injury has been sufficiently deep

SIZER'S SHIRES

Stallions and Mares for Sale.
All ages—the Get of
TATTON CHIEF 8605 (20087)
The sire of more prize winners than any other Shire horse in America.

L.N. and O.B. Sizer, Fisher, Champaign County, Ill

RECORDED SHIRE STALLION FOR SALE.

Seven years old; weighing over a ton; very gentle, proven an 80 per cen foal getter. Must sell on account of his colts. Price, $750 if taken soon. Als a stud colt; fillies of all ages and mares in foal. Must sell for cash or bankabl note. Will not consider a trade at all.

B. M. BOYER & SONS, FARMINGTON, IOWA

SHIRE STALLIONS

For sale; weanlings to 8 years old 1,000 to 1,900 pounds. Best of breed ing, quality and substance. Price $25 to $800.

J. E. McWHERTER, Plymouth, Il

NEBRASKA STATE FAIR WINNERS

FOR SALE—Some extra good Shires and they can be bought at a livin price.

C. H. ZACHRY,
Merna, Custer County, Nebraska

REGISTERED SHIRE STALLION.

For sale. Bright hay; 16¾ hand high; well proportioned, with style quality and action; sure foal getter will make ton horse. Will sell chea or will exchange for one his equal, no akin to my registered mares.

D. S. WHITE, Alma, Marion Co., Il

CLYDESDALE HORSES

Stallions and mares of all ages fo sale.

Also Shorthorn Cattle.

W. A. DeMerritt
Route 2, Plainfield, Ill.

CLYDESDALE STALLION

For sale. Six years old; weight 185 pounds. Good breeder. Fillies in th way.

Five black jacks for sale; the bi kind; from 15½ to 16 hands; blac with white points; from one year ol to six.

Also 5 spring bull calves (Here fords). All in good condition.

J. R. BROOKS, Cairo, Mo.

Clydesdale Stallions

For Sale.



Prize winners an the produce of priz winners. They ar mostly of the larg drafty type; age one to four year old. Prices and term most reasonabl Call on or write

W. V. HIXSON, Marengo, Iow

CLYDESDALES

For sale. Registered stallions an mares. Also bred Duroc gilts.

J. H. COPELAND, Fairfield, Ia. Rte

THREE STALLIONS

For sale or exchange, on account their fillies only. One Shire, wide an low; imported German Coach and saddle stallion; all 12 years old; reg istered; sound and show horses; goo breeders; colts to show. Have been our barn seven seasons, saddle hors four, must be changed. We are pri ing them very low, or will exchang the draft for Shire, Percheron or Be gian, if good enough. Don't wait. W mean business.

J. A. EVERMEYER & SON,
Troy, Lincoln Co., Mo.

STALLIONS FOR SALE.

One native bred bay Shire, 7 yea old, weight 1900. One imported ba Shire, 6 years old, weight 1700. O standard bred brown Hambletonian, years old, weight 1200. All sound an sure. Can show colts and furnish ce tificates. Have had them four yea and must sell as their colts are in th way. Prices reasonable. For furth particulars, write

PETER PURSEL, Local Stallion Ma McCool Junction, Nebr.

Mature Suffolk Stallions in American Breeder Stallion Show

ubscribers Interested in Suffolks are Requested to Write Us at Once Ranking These Horses First, Second, Third and Fourth Places, According to Merit as They See It.



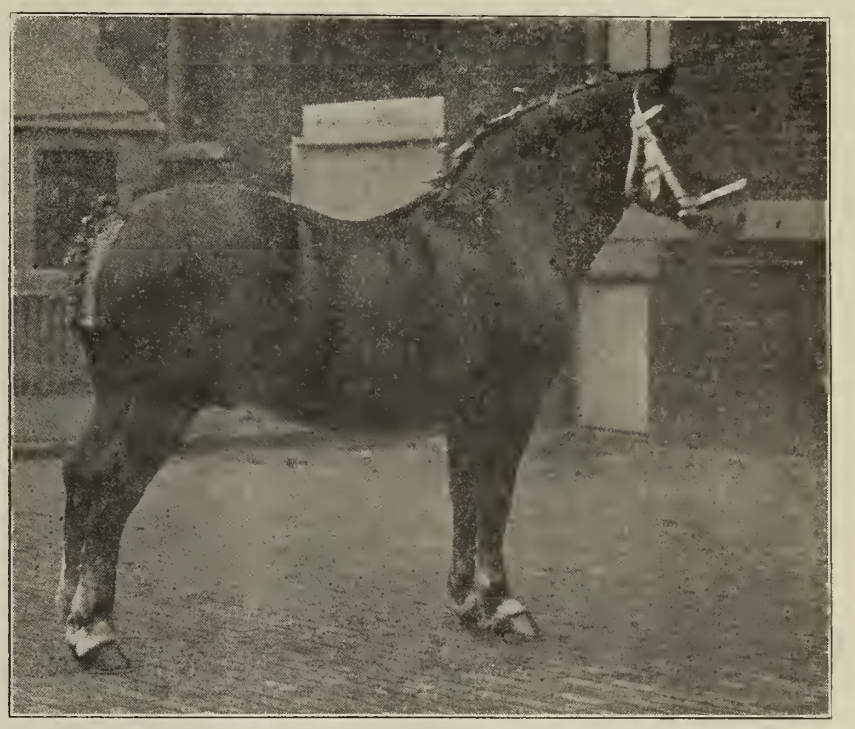
ntry No. 2—Height, 68 Inches; Heart Girth, 84 Inches; Bone, 10 Inches.



Entry No. 4—Height, 72 Inches; Heart Girth, 89 Inches; Bone, 11½ Inches.



ntry No. 3—Height, 67 Inches; Heart Girth, 86 Inches; Bone, 10⅝ Inches.



Entry No. 1—Height, 65 Inches; Heart Girth, 106 Inches; Bone 10¼ Inches.

Suffolk Punch Horses

We have imported stallions and ares and also home bred stallions om weanlings to two year olds. All r sale at very low prices, as we are erstocked. Correspondence solicited. **. A. Hamilton & Son, Loveland, Colo.**

jure parts that have never healed up roperly, and your case very likely in need of a careful surgical operaon in order to clean up this disised spot. One thing you ought to able to do, however, is to improve e condition of the foot itself. It has een inflamed so long that it has beme very hard and dry and this probly is responsible for the lameness e to pinching the sensitive parts ithin. Do a good lot of soaking and ulticing this foot and in that way epare the way for your veterinarian.

733—**INJURED KNEE**—I bought a ly last fall; it is coming two; it had e knee larger than the other. The an said it was a wire cut. Now that handle her, cannot find that it is a ire cut. She is not lame, but it is re to rub and I think it might be duced. It is large in front and on itside on upper half of the joint. A ort time ago it had a large, hard

TWO STALLIONS—ONE JACK.

For sale. One imported German Coach; dark bay, weighs 1500; coming 9 years old; an extra breeder. One black three-quarter Percheron, one-quarter German Coach; weighs 1400; coming 4 years old; will make 1600 pound horse. One registered black jack, white points; 13 hands high; extra heavy bone and good breeder. Price $1,000 for three. Am going out of the business.

H. H. SANDERS, Spring Valley, Ark.
(15 Miles East of Springdale.)

STALLION TO EXCHANGE—JACK WANTED.

On account of his fillies I will exchange my registered Belgian stallion for a Percheron or Belgian stallion. He is brown; 7 years old; 16½ hands high; weight 1600 pounds in work flesh; 13 inch bone; fine style and quality. Sire and dam weighed 4100 pounds; uniform breeder.

Jack wanted to stand on shares; 4 years' experience. Plenty of reference.

J. B. RING, Loulsburg, Kans.

PERCHERON AND SHORTHORNS

For sale. The Percheron stallion is Imp. Ardent (46552) 33842; black; a ton horse; 14 years, sound and sure, colts to show.

Two roan Shorthorn bulls, calved last July and August; fair flesh; registerable.

H. M. WIBLE,
Hazelton, Barber County, Kansas.

DRAFT STALLIONS FOR SALE

Coal black stallion; Clydesdale; registered as 14186; coming six years old. Colts to show. Never overbred; books to show; weight 2000; could easily weigh 2200. Has enough bone for 2500 pound horse. Excellent conformation, style and action. Good enough to head any herd. Must be seen to be appreciated. Also one grade Belgian stallion coming 8 years old; is a 1650 pound horse; stock guaranteed as represented. Quitting the farm, reason for selling. For price phone, write or see, **N. P. Matter, Colony, Kas., R.F.D. 3.**

BREEDING STOCK FOR SALE.

Imported Percheron stallion, Coco 58033 (62931); 8 years old; color bay-brown; weighing 2,000 in ordinary flesh, could be made to weigh 2,100. Certificate of soundness; 75 per cent breeder; lots of good colts to show. He is of fine proportion and fine action and for sale for no reason whatever; colts are in his way. Also a high grade Percheron stallion, coming 4 years old; black; weighing 1,850 pounds in common flesh, and as well made as you can find them. Certificate of soundness furnished. For sale for no cause; a sure breeder.

Also a large Mammoth jack; 15½ hands high; weight 1,125; good quality; sure foal getter and lots of good colts to show. Reason for selling, am going to quit the business. For prices, address, **Wm. Strohmeyer, Seneca, Kan., Route 4.**

FOR SALE, IF TAKEN SOON.

Black Percheron stallion. Small star and snip. Registered in P. S. of A. Four years old. Weight 1,900 lbs. He is a low down blocky horse with two broad ends and a wide back. Stands up straight on his limbs. A sure breeder. Has a very large bone and is a show horse. State license. Sound and right in every way. Any boy can handle him. Price, $900.

Also his half brother, black with star and small spot on nose, coming 2 years old. Sound and right in every way. Is registered and will make an 1,800 pound horse. Price, $200.

Also Clydesdale stallion coming 3 years old. Strawberry roan. Perfectly marked. Registered in American C. D. Association. No. 17501. Is a grandson of Benedict (10315) 9300. He is a low down blocky horse. Weighs 1,700 lbs., and never was defeated in the show ring. Has a large neck, stands straight on his limbs. With great style and action. Sound and right in every way. Price, $550.

Can't use these horses on my mares is the reason for selling. Also 2 registered Clydesdale mares. Heavy in foal. Sound and right in every way. Weight, 3,000 lbs., when matured. Price, $700. If this stuff is not as I say they are, I will pay expenses. Would consider a deal on a good young jack, or will pay cash for one if priced right.

C. H. WEMPE,
Seneca, Nemaha County, Kansas.

Houchin's Pleasure Horse, Jack and Farm Sale



March 11th, 12th and 13th

Jefferson City, Missouri

Ten head Saddle Stallions; ten head registered Brood Mares, in foal to Astral King; fifteen teams three-year-old Mules; ten head registered Hereford Bulls; five weanling Astral King colts; thirty head Standard bred horses, including some producing dams, Stallions and speed prospects; twenty-five head ready-to-use saddle horses, including six lady broke horses; eight head good Jacks. There will be a number of young Astral Kings in the sale.

We always sell the year's winners, and will do so this year. If you are interested, ask for catalog.

JAMES HOUCHIN, Jefferson City, Missouri

ANNUAL BREEDERS' SALE

60 head of registered saddle stallions, mares, jacks, jennets and draft stallions at the Blue Grass Stock Farm, one mile south of Mexico, Mo., Tuesday, March 10, 1914.

This stock consists of the best blood that Missouri and Kentucky affords. If interested, write for catalogue and arrange to attend this sale.

HAMILTON BROS.,

Mexico, Missouri

FOR SALE AT A BARGAIN.

A pacing colt; 3 years old last July; sired by Symboleer, 2:08¼; his dam is Trilby, record of 2:18. This colt weighs 1050 pounds and is a smooth traveler. Has not been trained, but is broke single and double.

J. H. MOORMANN, Solomon, Kans.

STALLION FOR SALE.

The best bred and best looking trotting stallion in the United States. This horse took first prize at the Minnesota State Fair for two years in succession against strong competition. Have no use for the horse and will sell or trade him for clear land.

MINNEAPOLIS RENTAL COMPANY, 305 Palace Bldg., Minneapolis, Minn.

STALLION IN SERVICE.
Stallion and Jack for Sale.

Council Chimes P. 2:07½, a demonstrated speed sire; sire of Minnie Chimes 2:04½ and many others in standard time. Terms $10 when mare is bred and a note for $40 due when a living colt is foaled. Write for pedigree and information.

I have a good French draft stallion and a big grey jack for sale.

DR. D. H. BIBENS, Larned, Kansas.

STANDARD BRED STALLION

FOR SALE—Sorrel, 16 hands; weight, 1150 pounds; heavy bone; colts to show. For further particulars, write,

CHAS. L. McKEE,

Box 87 Salem, Ill.

swelling come on the arm of the other leg. It looked like a kick but when I examined it there was a place as if there had been an old sore. It broke easy and run some bloody stuff and got all right, but there is a kind of puncture that does not go away. Is there any connection between the two and can I help the knee. I expect her to do farm work and raise colts.—Idaho Subscriber.

REPLY—Apply tincture of iodine to the knee once a day. We fail to see any relation between these conditions of the two limbs unless the animal met with some accident just previous to your purchase and was bruised in these places.

734—FOUR YEAR OLD SERVICES—I have a three year old stallion that is coming four in the latter part of April. I would like to know how many mares I could breed to him weekly.—Iowa Subscriber.

REPLY—Not over five services a week and one every other day would be better. Owing to the condition of the teeth in a four-year-old he should not be asked to do much more, if any, than a three-year-old. No two services closer than 24 hours.

735—SORE PENIS—What remedy would you recommend for a sore penis? —North Dakota Subscriber.

REPLY—You will have to be more definite in your inquiry and describe the nature, extent and location of the wound, also how long the difficulty has existed. You might just as well ask, "What would you recommend for a sick horse?"

736—USING A YOUNG STALLION—I have a stallion 21 months old; weight 1,500 in best of health. While the left testicle is of normal size the right is only half as big, and feels a little soft. Will this injure the breeding ability of the stallion? Furthermore, would it have any bad effects on the stallion to breed three or four mares in the coming season on account of his youth? He is a pure bred Belgian.—Montana Subscriber.

REPLY—No harm is likely to come from breeding the few mares you mention, if the colt is not given over two services in any week. It is quite possible that the small testicle will increase in size and firmness during the year, until it is nearly normal. Using the horse lightly, as indicated, may be of some benefit in this direction.

737—A DOUBTFUL PERFORMER—What is the cause of a jack that has been a good performer and a sure breeder, to quit serving. He will tease and get ready and mount and then jump off, and you can't get enough men hold of him to keep him on. He gets ready and back on he goes and off he comes. This jack is 12 or 13 years old. Could this jack be got to serve good?—Oklahoma Subscriber.

REPLY—Watch this jack for 24 hours, day and night, to see if he is masturbating. Look through a knot hole, as he may not do it in the presence of any one. This condition is sometimes brought on from too much service. Examine the penis closely for sores. The next mare you try to breed, wash your bands clean, sprinkle ground slippery elm on it and run your arm in tbe vagina so as to make the entrance as easy as possible. Sprinkle hay under the jack in order to make him urinate. If this is not successful lead him out to some particular place where he has been in the habit of doing this in order to get the bladder empty. We would suggest that this service be made on a jennet which has considerable length in the vagina, and one that is not too tall. When the bladder is empty have the jennet present so that the jack can make the service before the erection is too severe, then allow the jennet to take several steps. Encourage her to walk while he is mounted. This will assist in the desired results. If he should fail, take him back in the barn; take the bridle off; close the door and wait until the erection has disappeared, then repeat the performance. Do not try to get him to make a continued service because it only aggravates the condition. The flow of blood in the penis becomes so great that certain nerves are paralyzed. If after several attempts of this kind results are not obtained, heat some clean water just hot enough so that the hand can be held in it without burning. Have this in a suitable vessel so that when a jennet is led out, and the erection is started, immerse the head of the penis in this water. Be careful not to have it too hot to start in with; it would be better to bring the heat up by degrees. Fol this up three or four times a day for a week, then try him on a jennet again. Even if you have been successful in getting a service from this animal, the services should be kept up two or three times a week until the season begins. Be careful about serving mares with a short vagina, and it may be necessary to use ground slippery elm for several services. Always try to have the bladder empty so as not to bring on this condition. After the jack has made several services, test the semen with a microscope because it may not be fertile. The discharge may look perfectly natural to the naked eye and yet contain no life giving power for fertilizing purposes. Do not use this jack for a teaser or allow him the use of a paddock where mares have been bred. Keep him away from all influences which would cause him to get an erection.

BREEDING, HANDLING AND SELLING MORGANS.

To the American Breeder:—Enclosed find check for $10 to cover enclosed statement. My ad in the Breeder is bringing me lots of inquiries for Morgans. Have just about finished halter-breaking my Morgan colts—60 head—and they are a magnificent lot. Have had three men handling them for four weeks. Each man takes five colts and makes them perfectly gentle in a week's handling. —Richard Sellman, McCulloch County, Texas.

BIG JACK COLT.

To the American Breeder:—How is

SADDLE STALLIONS

For sale. Jim Patterson 4000; 4 years old; Sam Mede 5376, 2 years. Both are sired by Chester Mede 1676; he by Chester Dare 10; dam, Sallie F. 2865; she by Quarry Denmark 1337; he by Kentucky Denmark 300. They have been taken good care of and are well developed. We are going out of business and will price these horses worth the money.

CRAIG BROS., Pittsville, Mo.

SADDLERS FOR SALE.

Registered stallions and mares; all ages. Also a few Hereford bulls.

H. A. GREENWELL, Lakenan, Mo.

WANT TO LEASE

Good Percheron or Saddle stallion on the halves. Address

B. M. VARNELL, Grand Rivers, Ky.

REGISTERED MORGANS.

My Morgans are large: 15 to 16 hands and 1050 to 1300 pounds; have clean, heavy bone and possess all of the style and endurance for which the breed is noted.

Having bought Headlight Morgan to head a selected stud of The Admiral mares, The Admiral is now for sale. He is 15¾ hands high; weight 1250 pounds, and is the greatest all-round horse I know. I have 200 of his get on the place; part of them for sale.

RICHARD SELLMAN, Rochelle, Texas.

REGISTERED MORGANS, SHETLANDS AND PERCHERONS FOR SALE.

Morgans coal black; Blackhawk blood; mature 15½ hands; 1,200 pounds. Shetlands, part imported; some sired by David Harum. Morgan and Shetland stallions, mares and fillies from weanlings to mature ones. Priced from $60 up. Imported Percheron stallion: gray; 2,100 pounds; good individual and breeder. Price, $400. Please describe what you want in first letter.

E. F. BROWN, Derby, Iowa.

FOR SALE.

A Black Hawk Morgan stallion and a Morgan mare coming three years old, sired by the best bred Black Hawk Morgan stallion living, Sherman Morgan 01469 A. T. R. 5518 A. T. R.; a stallion of great power and vim; sires speed and the highest type of a roadster and harness horse. Characteristic of the Black Hawk Morgan family.

E. E. Seitner, Roann, Wabash Co., Ind.

SHETLAND STALLION

to exchange. Black; coming one year old, that I would like to exchange for another stallion, same color, two years old. For particulars, write

JOHN M. MISCHKE,

Crofton, Knox County, Neb. Route 3.

EXCELSIOR SHETLAND PONY FARM.

Registered and **High Grade Ponies** for sale. **W. H. Fulcomer, Belleville, Republic County, Kansas.**

SHETLAND STALLIONS.

To lease, for season of 1914. Spotted and solid colors. Mares, colts and geldings for sale.

GEO. H. SIMPSON, Wheaton, Ill.
25 miles west of Chicago.

Cleveland Bay Stallion

for sale. Captain 1243; foaled April 19, 1911. For further information, address

F. H. PRATT, Enid, Okla. Rte. 7.

SHIRE STALLION

For sale; registered; 3 years old. Is related to my registered mares.

D. S. WHITE, Alma, Ill.



JACKS.

The kind all are looking for; large boned, black Mammoth Tennessee and Kentucky jacks; 2 to 6 years old; guaranteed and priced to sell; all broken and prompt servers. Reference, banks of Lawrence, 40 miles west of Kansas City, on U. P. and Santa Fe.

AL. E. SMITH, Lawrence, Kans.

FIVE JACKS

For sale. All blacks with white points; two 2-year-olds, one 3-year-old jennet jack and two 8-year-olds. Will sell at a bargain.

HENRY KERSTING & SONS.

Gilmore, St. Charles County, Mo.

GOOD KENTUCKY JACKS AND JENNETS FOR SALE.

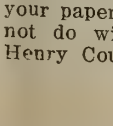
1 herd jack, 16 hands, 35 inches tip to tip of ears, 9½ inch bone, biggest of feet, and one of the biggest and best jacks in Kentucky; a great sire of both jack and mule colts.

12 good jennets, all right, and black with white points. I advertise because I want to sell and I'll sell them worth the money. **W. L. Garriott, Route 2, Smithfield, Ky.**

Jack For Sale

Black; 15½ hands, standard; big foot and bone; 34 inch ear; 900 pounds; a show jack; 2 years old last September; broke on mares. I raised this jack and can't use him but he is good enough for anybody's herd of jennets.

JOHN TOOLEY, Anabel, Mo.



50 registered, big boned black jacks and jennets. Colts to 16 hands; big, stylish, good lookers; great mule jacks. **J. H. SMITH, KINGFISHER, OKLA.**

JACK WANTED

I want a 1100 pound jack. Give me correct description, measurements, weight and price in first letter.

SANFORD HUTSELL, Hampton, Neb.

I HAVE THREE JACKS

and need only one. They are strictly good and O. K., and you can have your choice. I'll have a mighty good jack left after two have been picked out. Come and See. **LEW JONES, Alma, Wabaunsee County, Kans.**

FIVE MISSOURI JACKS

for sale, one to five years old. Prices right. Address,

FRANK GIBBS, Bowling Green, Mo.

FOR SALE

Three extra good jacks and one Shire stallion.

H. H. EISENBATH, Wentzville, Mo.

GOOD THREE YEAR OLD JACK.

For sale, or would exchange for good Percheron fillies or mares.

A. J. DUNAWAY, Chilhowee, Mo.

JACKS and JENNETS

For sale. Ten good, young jacks and 12 jennets. Priced to sell.

H. A. SCHWATKEN, Hammond, Kans.

this for a Logan County, Arkansas, jack colt? Measurements are as follinches; arm, 19 inches; drumstick, 8 inches; hook, 16 inches; tip to tip of ears, 32 inches; knee, 14 inches; height, 61 inches; weighs 674 pounds and is 77 inches from ears to root of tail.—John Carolan, Logan County, Arkansas.

BELGIAN SOLD AND STILL LETTERS UNANSWERED.

My January ad in the American Breeder has brought me many inquiries; have not been able to answer all my letters. I have sold the Belgian to Mr. W. H. Westcott of Granville, Ill. Thanking you for what your paper has done for me—I could not do without it.—Fred Eggimann, Henry County, Ill.

Advertising Briefs

PUBLIC SALE DATES.

Percherons.

Feb. 25—J. C. Robison, Towanda, Kas.

March 5—R. Wilkinson & Son, and C. F. Jones of Rippey, Ia., sale at Mitchelville, Ia.

March 9—North Mo. Live Stock Association, W. A. McVay, Mgr., Trenton, Mo.

Mar. 19-20—North & Robinson, Grand Island, Neb.

Belgians.

Mar. 19-20—North & Robinson, Grand Island, Neb.

Shires.

Mar. 19-20—North & Robinson, Grand Island, Neb.

March 5—R. Wilkinson & Son, and C. F. Jones, Mitchelville, Iowa.

Saddle Horses.

March 10—Hamilton Bros., Mexico, Missouri.

March 11, 12, 13—James Houchin, Jefferson City, Mo.

Jacks and Jennets.

Feb. 21—Marshall County Jack & Jennet Breeders' Association, Lewisburg, Tenn.

Feb. 24—H. T. Hineman & Sons, Dighton, Kas., and D. J. Hutchins, Sterling, Kas. Sale at Sterling.

Feb. 28—C. McNulty, Morrowville, Kas. Sale at Concordia, Kas.

March 9—G. C. Roan, LaPlata, Mo.

March 9—North Mo. Live Stock Association, W. A. McVay, Trenton, Mo.

March 10—Hamilton Bros., Mexico, Mo.

C. F. Jones of Rippey, Iowa, joins R. Wilkinson & Son in the big sale of registered Percheron and Shire stallions and mares to be held at Mitchellville, Iowa, March 5. Forty horses will be sold in this sale and in point of draftiness the offering is said to be the strongest of the year. Every two year old in the sale weighs better than 1,800 pounds and the mature animals weigh up to 2,200 and better. One of the 2,200 pound stallions is the imported Percheron, Juan 79511 (86013), a sire of many prize winners. The yearling show stallion, Marvin, in this sale, weighed 1,600 at 20 months, and his dam the $2,000 Imprudente was grand champion at the Wisconsin State Fair. A prize winner among the mare and fillies is Favorite, a Futurity, winner at Des Moines that weighed 1,800 as a two year old. Another of the imported stallions in this sale is Jarnage, now four years old, that won as a two year old in the Iowa and Illinois State Fair and at the International. Remember the date of this sale is March 5, and application for catalogues should be made at once, mentioning the American Breeder. Address either C. F. Jones, Rippey, Iowa, or R. Wilkinson & Son, Mitchellville, Iowa.

A. Altman, Almena, Kas., wants to trade a 320-acre farm for some good young jacks, Percheron stallions and mares. For information, write him.

W. L. Garriott, Smithfield, Ky., is advertising some good Kentucky jacks and jennets for sale, and will sell them worth the money. Write him for information if interested.

J. R. Pruden, Washington, Kas., has a stock farm of 314 acres for sale, also three Standard registered stallions. His ad is in this issue.

N. P. Matter, of Colony, Kas., is going to quit the business and wants to sell his draft stallions. Look up the ad.

S. D. Henry, Excelsior Springs, Mo., is advertising three stallions for sale and one Guernsey bull calf, 15 months old.

Marquis A. Churchill, Randall, Minn., has an eight year old three-quarter Percheron stallion for sale. Write him for full information.

Wilbur L. Moberly of Mt. Orab, Ohio, has a nine months old Belgian stallion advertised for sale in this issue at $200. Read the ad.

Wm. Strohmeyer of Seneca, Kas., is advertising his breeding stock for sale, consisting of one imported Percheron stallion, one grade Percheron stallion and a large Mammoth jack. Address him at Senaca for full information.

Henry Kersting & Sons of Gilmore, Mo., has five jacks advertised for sale in this issue which he will sell at a bargain.

A. J. Dunaway, Chilhowee, Mo., is advertising his three year old jack for sale or trade for good Percheron fillies or mares.

Singmaster & Walker, Sioux City, Iowa, write: "During the last week we sold 12 head of stallions and mares, two pairs of draft mares to Iowa farmers, one fine young Percheron stallion to a Minnesota breeder, three Percheron stallions to Nebraska farmers, and four Percheron stallions to Montana breeders. This reduced our herd quite a bit but we will replenish it with a new lot from the farms at Keota at once. We propose to keep a good assortment at our Western barns at all times where Western men can find as good a selection as can be found in any barn. We have quite a few of our International herd here, some that weigh over 2,100 pounds."

John Tooley, Anabel, Mo., is advertising a two year old jack for sale in this issue that he says is good enough to herd anybody's herd of jennets.

Henry Heibner, Danville, Ia., wants to trade two young jacks for Percheron mares or fillies, or he will sell them; they are a black and a gray. Look up the ad as it does not appear but once.

Corson Bros., Potter, Kans., have 25 head of Mammoth jacks and jennets for sale. Write them for prices.

T. M. Triplett, Garnett, Kans., wants to exchange a 320-acre clover-alfalfa farm for a stock farm in North Missouri. His ad appears in this issue. Write him for full information.

Al. E. Smith, Lawrence, Kans., is one of the oldest and most reliable jack and jennet breeders of the West. A lot of the reputation which Kansas and Oklahoma are getting as producers of big, high class mules, has been due in part to the scores of high class jacks Mr. Smith has sold throughout this territory. He has on hands not a good string of jacks from two to six years old, well broke and guaranteed. Mr. Smith gives the banks of his city as reference.

Sanford Hutsell, Hampton, Neb., is in the market for an 1100-pound jack. Write him, giving weight and price in first letter.

J. H. McCulloh, Creighton, Mo., has two registered Percheron stallions of his own raising for sale worth the money. Read his ad in this issue.

F. H. Pratt, Enid, Okla., Route 7, is offering his Cleveland Bay stallion, Captain 1243 for sale. Write him for full information.

The Leather Products Co., 1350 Acoma St., Denver, Colo., are advertising in this issue their "Never-break" halter, and guarantee satisfaction or money back. The regular price of this halter is $3.00, but in order to get this halter before our many readers they are selling it for $1.50 or four halters for $5.00 on direct factory shipment. They prepay all charges. Look up this advertisement and in making inquiry of this firm, please mention the American Breeder.

ALL MY JENNETS, JACKS AND PERCHERON STALLION FOR SALE, ACCOUNT OF DEATH IN FAMILY.

15 jennets, good, heavy bodied, big boned, good colored, good breeders, mostly reserve stock.

6 jacks, as follows; Herd jack, 8 years, 15½ hands, standard, 1040 lbs. actual weight, black with white points, cost me $1,000 in July, 1911, the best breeder in this section and would not be for sale at any price if I was keeping the jennets; 6-year-old jack, 15¾ hands, standard, 1100 lbs., color, bone and feet the best, good breeder, colts to show; 2-year-old jack, by my herd jack, 15½ hands now and will make a 1200 pound jack, ears 35½ inch, tip to tip, bone below knee 9 inch, below hock 10 inch, broke to mares and will make a great jack.

Percheron stallion, 6 years, registered P. S. A., gray, 2075 lbs., actual weight, heavy boned, fine disposition, a prize winner and a great breeder, colts to show, fillies by him weigh 1320 lbs. at 2 years, on grass.

H. A. WEHRMANN, ROUTE 1, MONTICELLO, MO.



Missouri Registered Mammoth Jacks and Jennets

FOR SALE AT ALL TIMES.

As fine a bunch as can be found on one farm. Guaranteed as represented. Prices right. Come and see them.

J. T. WATSON,

New London, Ralls County, Mo.

HOME OF THE GIANTS.

100—JACKS AND JENNETS—100

"Our motto is from good to as good as grow." Some real herd jacks. Our jacks are all Mammoth and are the big, thick, big boned; big footed kind. Raised mostly by ourselves and our neighbors. Every one guaranteed as represented.

BRADLEY BROS., Warrensburg, Mo.

65 miles east of K. C. on Main Line Missouri Pacific.





HEADQUARTERS FOR JACK STOCK

LIMESTONE VALLEY STOCK FARM.

The best trade of North America has for years supplied itself largely with Jacks and Jennets from our herd. The World's Greatest Show Yard Winnings and Public Sales are a part of our record. The same honest values always open to private buyers; the Square Deal for all.

L. M. Monsees & Sons, props., Smithton, Mo.

JACKS, JENNETS, PERCHERON MARES

We wish to announce to prospective buyers that we have 23 head of jacks—the good kind—raised on the farm, ready for sale this spring. This is strictly a breeding farm, no brokerage; 50 breeding jennets, headed by Paragon and Jumbo Mammoth, two great jacks.

Ten imported Percheron mares, headed by imported Kossuth, the best that money could buy in France; a span of coming two-year-old fillies; a coming two-year-old stud, will make a ton horse. The offering this year at reasonable prices.

OAKLAND STOCK FARM, BOX 267, CHILLICOTHE, MISSOURI.

40--Big Black Jacks and Jennets--40

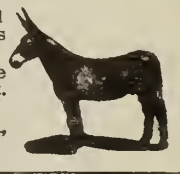


Come to one of the oldest jack farms in Missouri. I make a specialty of breeding the big kind; extra big bone; big bodies. My barns are full of big young ones from 2 to 6 years old; 15 to 16½ hands.

ED BOEN, LAWSON, MO.

(Lawson is located 38 miles northeast of Kansas City on the C., M. & St. P. Ry., also 40 miles southeast of St. Joseph on A., T. & S. F. Ry.)

22 TENNESSEE JACKS



Fine large; all ages. **Also 12 jennets in foal.**

Also fine saddle stallions. **Prices right. Ask for catalog.**

S. W. JETTON & CO., Murfreesboro, Tenn.



300 HEAD of Colorado raised Jacks, Jennets, Mules and Brood Mares. All guaranteed. Prices right. **Lewis Swink & Son, Rocky Ford, Otero County, Colorado.**

MAMMOTH JACKS AND JENNETS.

Our specialty is herd headers. Have them as good as grow. 48 years a breeding stable, have succeeded because we use the best that money will buy. Satisfaction guaranteed.

G. M. SCOTT,

Rea, Andrew County, R. F. D. 2, Mo.

JACK AND STALLION FOR SHORTHORNS.

Will sell or trade for Shorthorn cattle, one imported black Percheron stallion; weight 2,000 pounds; one registered jack; black with white points; weight 1,200 pounds. Both have extra heavy bone and body and are great breeders; colts from weanlings to 4 years old to show.

MORELOCK BROS., Green Castle, Mo.

LEAVENWORTH COUNTY JACK FARM.

Established 1882. 25 head of Mammoth jacks and jennets. Write for prices.

CORSON BROS., Potter, Kansas.

On Santa Fe Ry.

KENTUCKY JACK AND PERCHERON FARMS.



Two hundred head of big bone Kentucky, Mammeth jacks, saddle stallions, mares, colts and fillies. The jacks and saddlers you want are here. 2500 bushels of blue grass seed. Our prices and terms will suit you. Write us your wants or visit our farms.

COOK & BROWN, Proprietors, LEXINGTON, KY.

JACKS AND JENNETS.



Thirty-five head of Mammoth jacks and jennets for private sale. Jacks in age from 1 to 5 years old; in size up to 16 hands. These jacks are all good ones, black with white points. I have one of the best herds of jennets in Kentucky. I raise all of my own stock and will sell them worth the money. Write for prices today, or better, come and see them.

U. G. SAUNDERS, Flemingsburg, Ky.

TEN JACKS

For sale; 15 to 16 hands standard; 2 to 5 years old; big heads and ears; lots of bone and foot. Write for photo of best jack in Missouri.

BEN M. GREEN, Cape Girardeau, Mo.

Six Jacks

For sale. One extra good 3-year old past. Come and see this jack and if you don't find him a great big, good one, I will pay your car fare.

T. E. COLLINS & SON, BELLEVILLE, KANSAS.

6-JACKS--6
17-JENNETS-17

The jacks are three and four years old, and they and the jennets are all good stock. All black with mealy noses. I want to close them out this spring, and will make the prices right.

JOHN A. EDWARDS, Englewood, Kas.

JACKS AND STALLIONS

For sale. Registered jacks; all black with white points; from 15 to 15¾ hands; from 3 to 6 years old; well broke and as good as grow.

Percherons from 2 to 8; the big, good kind, weighing from 1700 to 2100 pounds; all guaranteed as represented.

J. E. PARK, Owner, CAMERON, MO.

MISSOURI REGISTERED BLACK SPANISH JACKS AND JENNETS

For sale. I have 6 jacks and 6 jennets, black with white points. I also have two stallions, both black; one imported and one three-quarter German Coach. I am selling out on account of old age and rheumatism.

FRANK BUSCH,
Villa Ridge, Mo. R. F. D. 1, Box 52.

25 Mammoth Jacks and Jennets

For sale. I have more high class jacks and jennets to offer the public this season than I have ever had before. They are bred right; priced right, and fully guaranteed.

JAS. M. SPURGEON,
Williamstown, Lewis County, Mo.

TWO JACKS

For sale. Five and 6 years old last July; 15¾ and 16¾ hands high; weight 900 and 1,200 pounds. Cash $1,000 each. No trades.

LOUIS KOENIG, Solomon, Kans.

FINE TENNESSEE JACK

For sale; three years last September; 9½ inch bone; good head and ears and as smooth as a horse. Address,

GEO. COCHRAN, Jarbalo, Kans.

THREE JACKS FOR SALE.

Black with light points; old enough for service. Six young ones in the barn.

J. T. HEWITT.
MENDON, ILLINOIS.

JACKS AND STALLIONS

For Sale. Good Iowa bred jacks, also an aged, but good, imported black Percheron stallion. Good breeders and priced low. A bargain. Barn in town.

A. C. BRIGGS, Missouri Valley, Iowa.

W. C. Baughman, Pulaski, Iowa, has imported and home-bred Percheron stallions, mares and fillies for sale at reasonable prices.

J. D. DeTar of Spring Hill, Kans., wants to get an extra good jack. He also has some young Percheron stallions for sale, or exchange.

C. H. Zachry, Merna, Neb., is selling some state fair Shire stallion winners at living prices.

Western Sales Agency, Minneapolis, Minn., wants our readers to write them for particulars and magazine about improved farms and wild lands they wish to buy.

Chas. L. McKee, Salem, Ill., Box 87, is offering a Standard bred stallion for sale. Write him for full particulars.

R. M. Johnson, Bolivar, Mo., has a nice bunch of jacks and jennets that he is pricing to sell. Any one in the market for stock of this kind would do well to write Mr. Johnson for particulars.

Seeds shipped on approval are advertised by J. W. Richards, Ferris, Ill. Mr. Richards' sells medium red clover, big English clover, Alsike clover, Timothy seed and the leading variety of seed corn. Mention the American Breeder when writing him for samples and prices.

Non-irrigated alfalfa seed is advertised by Schwabe Bros., Chadron, Neb. Here you can buy direct from the growers, alfalfa seed, cane seed, millet and sweet clover as well as baled alfalfa hay. Mention the American Breeder when writing Schwabe Bros.

Ed. Roll of Scribner, Neb., writes: "My Belgians are coming along in fine shape. My stallions have all been inspected and have been pronounced sound. They have not been pampered and are in the best of condition for service, to do the purchaser the best of good. I have yearlings that weigh right around 1700 pounds, with plenty of bone and quality. The two-year-olds weigh from 1700 up. My mares are regular producers and are in foal and weigh from 1800 to 2000 pounds in working condition. I showed 8 head at the Hooper and Scribner stock shows and won five first and six second prizes. I am pricing these horses to move in the next thirty days. Anyone interested in Belgians should write, or better, come and look over my offering."

E. P. Hamilton & Sons, Garden Grove, Iowa, have some good registered Belgian, Shire, Percheron and Standard bred stallions and mares. Their stock really affording size as well as quality, and at reasonable prices.

A. F. Simpson, 400 Price Ave., Columbia, Mo., has an advertisement in this issue for a position on a stock farm or horse and jack breeding establishment. He is a graduate of the Graham Scientific Breeding School and understands capsule breeding.

Chas. Young, Taylorville, Ill., has a pure bred Percheron stallion for sale at a reasonable price.

J. H. Smith, Kingfisher, Okla., has 50 registered jacks and jennets for sale at the right kind of prices.

Box 369, Lockport, Ill., is offering an imported Belgian stallion for sale at $700 cash, or will trade for a black Percheron, equally as good.

Chas. Irvine, Ankeny, Iowa, has high class Belgian and Percheron stallions and mares always on hand. If in the market, don't fail to write him for prices.

Oakland Stock Farm, Box 207, Chillicothe, Mo., has jacks, jennets and Percheron mares for sale at reasonable prices. Write and get their prices on the stock that they have.

L. B. Shepard, Kincaid, Kas., holds a closing out sale of stallions, jacks and jennets at Kincaid on March 3, at 1:00 p. m. Don't fail to attend the sale if in the market for stock of this kind.

Minneapolis Rental Co., 305 Palace Bldg., Minneapolis, Minn., has a trotting stallion for sale or will trade him for clear land. This horse is a two time prize winner at the Minnesota State Fair.

J. C. Robison of Towanda, Kas., writes, concerning his big Percheron sale, February 25, that he is selling 20 stallions and 35 mares, mostly bred to Casino. More mares showing safe in foal are in the sale than ever included in any previous sale. There will be several matched pairs, blacks and dark greys. Some of the mares weigh as much as 2100 pounds. One of the best daughters of the champion, Carnot, included, will be bred to Casino free of charge to the purchaser. This combines the blood of the two greatest living sires. This combination has sold for more money than any other blood. Many mares included have proven extra good breeders. Colts on the farm from them to show. The mares are mostly broken to harness and worked on the farm last season. The great show mare, Annette, by Balzane, World's Fair winner, and out of a daughter of Casino and Rosa Bonheur, the greatest show mare ever imported to America, will go in the sale. Some imported mares are bred to Casino. Among the stallions are the five-lear-old stallion. Elegant, by Casino, weighs now 2100; the coming three-year-old stallion by Casino, named Casino Jr., weighs now 1950; two of the greatest sons of Casino ever offered from this farm. Koulikan, the assistant herd sire, will be included in this sale, a dark grey, four years old and weighs a ton, imported for use on this farm by myself. Stallions all blacks and dark greys, and I believe the most useful lot I ever offered.

Trumans' Pioneer Stud Farm, Bushnell, Ill., writes: "I am very pleased to report that the demand for strictly high class draft stallions still continues good with us. We had the pleasure of selling to Mr. Alfred Wright, of Montana, an imported Shire stallion from the noted Wrydelands stud. To Tony VanBeck of Pottawattamie county, Iowa, an imported Percheron stallion. To Shay & Goodman of Olmstead county, Minnesota, the imported Shire stallion "Lion Heart II," a winner at the 1912 and 1913 Internationals. To our old customer, L. J. Koch of Lee county, Iowa, an imported Percheron stallion. E. C. Sargent of Knox county, Ill., purchased an imported Belgian stallion. This is the third stallion we have sold him. To C. L. Bressie, Montgomery county, Iowa, an imported Shire stallion. Messrs. Hensley Bros., Shelby county, Ind., purchased a black Percheron stallion, weighing over 2100 pounds. L. H. Dean, Humboldt county, Iowa, secured an imported black Shire stallion from the noted Wrydelands stud. That enterprising young breeder, A. E. Wolf, of Kendall county, Ill., purchased a pair of imported Shire mares from us which will greatly strengthen his stud of pure bred Shire horses. Our 1914 catalogue should be in every man's hands that contemplates purchasing high class stallions of either of the four breeds we import.

Taylor & Jones, Williamsville, Ill., write: Our horses are doing well and buyers are coming every day. Within the last few days we have sold to Henry Priesmyer, of Bond county, Ill., an imported Percheron stallion; to H. W. Wynn, of Indiana, a 2300-pound imported Belgian stallion; to F. M. Capron, of Johnson county, an American bred Shire stallion that is a State Fair winner, and to C. E. Walker, of Shelby county, Illinois, an extra good, imported Belgian stallion. This is about the sixth horse Mr. Walker has bought of us. He always buys the best he can find, the price being a secondary consideration. We think our horses in the new importation are fully up to the standard, they having weight, bone and quality.

Closing Out Sale

Of Registered Stallions Jacks and Jennets

TUESDAY, MARCH 3, 1914

at 1:00 P. M., at Kincaid, Kans., Anderson County.

This bill includes the great imported Percheron stallion "Kontack" (91574) 92347, coming 4 years old; French draft, "Teddy" 19790, coming 8 years old; grade Percheron, "Bumblebee," 8 years old.

Six fine jacks ranging from 16 months to 10 years and six head fine jennets. Write for particulars.

Auctioneers: John D. Bridges, J. B. Duerson and J. B. Rudisill.

L. B. SHEPARD - - Kincaid, Kans.

WILLIAM T. TROTTER'S THIRD ANNUAL SALE OF

High Class Registered Jacks and Jennets

At the Fair Grounds, Mount Ayr, Iowa

THURSDAY, MARCH 5, 1914

23 jacks and 10 jennets. The good, big, thick jacks; all good colors; good age and the kind to breed the good mules.

From suckers to eight year olds. From 14½ to 16 hands high. Every jack that is of breeding age, broke to mares, and we guarantee every animal to be just as represented.

Pedigree and certificate of registry will be furnished with every animal sold.

Sale will be held at the Fair Ground barns, rain or shine, and we ask you to be with us. Don't let a storm scare you. Sale will commence promptly at 12 o'clock M. Colonel R. L. Harriman and others, auctioneers. For further information, address,

WILLIAM T. TROTTER, Mount Ayr, Iowa.

"WE HAVE WHAT WE ADVERTISE"
For Sale.



15 head of big black jacks; 3 to 6 years old; 14½ to 16 hands. Big bone, heads. The right kind.

Also some draft and saddle stallions. All priced to sell.

MILTON GUSTIN, Edgerton, Mo.

14 GOOD BREEDING JACKS.

Also imported Percheron and Belgian stallions; some weigh 2160 pounds. Stock for sale on long time payments, 1, 2 and 3 years at 6 per cent.

R. I. LITTLE, Route 2. FAIRFAX, IA.

25 JACKS AND JENNETS 25

For sale. I am pricing to sell. I have them from colts up. I have lately added several good ones, and now have some of the best I have owned.

R. M. JOHNSON,
Bolivar, Missouri.

WANTED An Extra Good Jack

The wide, thick kind; 4 or 5 years old. Full particulars first letter.

I have some of the best young Percheron stallions in the state for sale, or would exchange.

J. D. DETAR, Spring Hill, Kansas

ONE SPANISH JACK

for sale or trade for mares; 8 years old. Can show mules. For particulars write

JOHN M. MISCHKE,
Crofton, Knox County, Neb. Route 3.

THREE JACKS

For sale. Young; extra good. Will sell cheap if sold in next 30 days, if not could use an extra good Percheron horse to stand on shares. Write at once. **R. W. SHRADER, Corso, Mo.**

JACKS

For sale. Two extra good ones; 3 and five years old.

W. J. STRONG, Moran, Kans.

SOME EXTRA GOOD JACKS AND JENNETS.

For sale, as good as they grow them anywhere. Some of these jacks will mature into 1200 and 1300 pound jacks, with as good a bone, body, style and finish as you see anywhere. Ages from 8 months to 8 years old. If you want a good young jack or jennet at a reasonable price, write or come and see them. **HENRY OBERMANN,**
Freistatt, Lawrence County, Missouri.

27 miles north of Monett, on Frisco Ry., and 6 miles southwest of Hoberg on Missouri Pacific.

Jacks For Percherons

Or will sell. I have two young jacks ready for service—a black and a gray. I want Percheron mares or fillies. Write me what you have. This ad will appear but once.

HENRY HEIBNER, Danville, Iowa.

Danville is on the C. B. & Q., 13 miles west of Burlington.

DEIERLING & OTTO'S
MAMMOTH JACKS AND JENNETS



40 head big, black Mammoth jacks, 25 jennets—the big, wide-out, 15 to 16 hands kind; from yearlings to 6 years old. Mostly two's and three's of our own breaking. Black with white points; heavy boned and good, including our 1913 prize winners.

We have a splendid lot of young jacks, jennets, Percherons, Saddle, Coach and Trotting horses to trade. Correspondence and inspection invited.

DEIERLING & OTTO, Queen City, Mo.
Main line Wabash—St. Louis-Des Moines Line.

DISPERSION FARM SALE.

Four miles south of Lake Park, Ia.. February 25th. Registered Spanish Jack, 7 years old, black with white points, over 15 hands high and weighs nearly 1,000 lbs. He is sound, has plenty of bone and has groven to be an excellent breeder. (I bought this jack four years ago and he was the best I could find after looking over a large number.)

20 of his mules all from heavy draft mares. Eleven head coming three, nine head of ones and twos. 20 head of draft mares and colts. Four Percheron mares registered in P. S. A.

25 head of grade Angus cows and heifers. 100 head of immune sows, bred. Farm machinery, grain, etc.

Write for sale bill and photo of jack.
J. W. MARKS,
Lake Park, Dickinson County, Iowa.
On C. R. I. & P. R. R.

JACKS



Kentucky Bluegrass bred and raised; the foundation of all other states. Old Honesty has the blood lines of all who have made success and fame in the jack business. Write your wants or come to my barn at Greendale. Electric line right at door. Stop 10.
S. C. NUNNELLEY,
Lexington, Ky. **Route 6.**

Prize Jack

For sale. Prize winner at Fort Worth; Kentucky bred; black, white points; registered. Perfect in every respect. Denmark saddle stallion; Kentucky bred.
ORVILLE E. PHILLIPS,
Dallas, Texas. **Station A.**

JACKS AND MULES.



Eighteen jack and mule farms under one management, where can be seen 380 head of fine large jacks, pennets and mules, 14 to 17 hands high. Good ones. Stock guaranteed.
Write for prices today.
KREKLER'S JACK FARM,
WEST ELKTON, O.
Branch Barns, Clinton, Indiana.

TWO GOOD YOUNG JACKS.

Both sired by Big John. They are 3 and 5 years old; black with white points; fourteen hands; strong; standard; heavy bodied; big boned; big eared and good individuals. Colts to show from older jack. Both guaranteed right in every way. Am pricing them down low at $400 each.
DR. R. P. POAGE, **Shelbina, Mo.**

J. B. Ring, Louisburg, Kans., is advertising his Belgian stallion to exchange for a Percheron or Belgian. He also wants a jack to stand on shares and can give plenty of reference. Read his ad.

John B. & J. W. Smith of Wellsville, Kans., want to sell their Percheron stallion, Ragoleur. They are pricing this stallion at $700 (cost $1,000), as they are quitting the business.

H. M. Wible, Hazelton, Kans., has a Percheron stallion and two Shorthorn bulls advertised for sale in this issue.

Fritzeli & Sons of Fritzell, Kans., have two Percheron stallions for sale, or will trade for good mares or mules. See their ad and write for further particulars.

M. T. Bernard, Grand Island, Neb., has fifty head of Percheron, Belgian, Shire and Clydesdale stallions for sale. Write for folder telling about this stock.

L. W. Mills, Racine, Wis., is advertising in this issue a choice weanling Percheron filly for sale.

G. L. Dutton, Keota, Iowa, wants to sell his Percheron stallion, Duke (56249) and his two year old French draft stallion, as he is quitting the business.

John M. Mischke, Crofton, Neb., wants to exchange his Shetland pony for another. He also has a Spanish jack for sale or trade. Read his two ads in this issue.

I. N. Green, Kiowa, Kans., has a farm to trade for jacks, jennets or draft horses. The farm consists of 110 acres.

Hamilton Bros., Mexico, Mo., will hold their annual sale on Tuesday, March 10, at their farm one mile south of Mexico. They have 60 head of registered saddle stallions, mares, jacks, jennets and draft stallions, and will be glad to send any of our readers a catalogue if interested.

D. S. White, Alma, Ill., has a Shire stallion for sale on account of his fillies.

R. W. Shrader, Corso, Mo., is advertising three jacks for sale cheap if sold within the next thirty days, or he will take an extra good Percheron stallion to stand on shares.

W. J. Strong, Moran, Kans., has two extra good jacks, three and five years old for sale.

A. A. Thompson, Roodhouse, Ill., has 200 acres of virgin timber for sale near Rolla, Mo., or will trade for registered German Coach mares or a large jack.

Henry Obermann, Frlestatt, Mo., is selling his jacks and jennets at very reasonable prices and would like to have any of our readers who are interested to write him, or go see the stock.

W. W. Waters, West Liberty, Iowa, has Percheron stallions and mares for sale sired by the great Brilliant D. 45336. Read his ad.

Thos. S. Work, Fort Morgan, Colo., has a Percheron stallion to trade for one equally as good. Read his ad.

H. A. Wehrmann, Monticello, Mo., is advertising in this issue all of his stock of jacks and jennets and one Percheron stallion for sale on account of a death in his family. This stock is mostly reserve stock. His ad gives a good description of what he has.

WANTS A MULE SHOW.

To the American Breeder: I was very much interested in your "Jack Show" and fully intended to send in my vote, but neglected doing so. While I think the show was fine, I think there is another test which should follow, and one which I think will be even more interesting, and will introduce another phase of the case which is to my mind of more importance than the jack. I think we should now ask the six owners of the prize winners to show in the same way their best weanling mule—the get of the prize winning jack. What do you think of this plan?—L. E. Alexander, Bond county, Ill.

$19,000 SALE IN "SHORT GRASS" COUNTRY.

I. N. Green of Kiowa, Kans., writes in regard to his sale of jacks, jennets, mules and cattle on January 29: "I had a good sale. I sold $19,360 worth of stock. Everything sold very well for the way times are. My cows brought good prices, my jacks averaged $425 a head, colts and all."

"MY ADS HAVE KEPT ME BUSY."

To the American Breeder:—I rereceived your bill for ad. Now you will find check for same enclosed and I feel amply paid by your service. I think your paper is the best paper for a breeder in this business, and if he advertises anything to sell or trade he surely will get to do business or back down. I just arrived home from Missouri on a deal "stock for land," and I will go to Monon, Ind., Monday to trade jennets for a fine Percheron stallion. My ads you put in your paper for me have sure kept me busy. Please accept thanks.—D. A. Thomas, Warren County, Ill.

HOW TO OBTAIN THE PUBLICATIONS OF THE U. S. DEPARTMENT OF AGRICULTURE.

The following information on how to obtain the publications of the U. S. Department of Agriculture will be welcomed by many who have wanted such literature. It comes from Charlotte Agnes Baker of the Colorado Agricultural College.

The Department of Agriculture issues three general classes of publications:

1. Publications issued annually. These comprise the Year Book, the Annual Reports of the Department of Agriculture, of the Bureau of Animal Industry, of the Office of Experiment Stations, of the Bureau of Soils, and of the Weather Bureau. The editions are large, and are distributed mainly by senators, representatives, and delegates to Congress. For these publications, it is best to write directly to one of them.

2. Other departmental reports, Bureau bulletins, etc. These are mainly of a scientific character, and are printed in small editions. They are not for distribution by members of Congress, nor are they distributed freely by the Department.

3. The Farmers' Bulletins, circulars, Yearbook extracts, and other popular papers. These are written in plain language and treat in a popular way, agricultural subjects. They are issued in large editions, and may be obtained by writing either directly to the Department, or to your congressman.

4. A limited number of the documents in classes 1 and 2 are sent to the Superintendent of Documents, Washington, D. C. He is authorized

FEBRUARY 24

WE SELL AT AUCTION

40 Good, Big, Rugged, Heavy Boned Jacks and Jennets

AT STERLING, KANSAS

25 Jacks 2 years to coming 6 years old; 15 Good, Big Broody Jennets, coming 3 to coming 6 years.

Everything registered and all black with white points.

We are selling the get of the greatest jacks in the United States, including the Grand Champion, Pharaoh 2491.

We won more premiums on Jacks, Jennets and Mules at the last Kansas State Fair than all other exhibitors-combined.

Be sure to attend. Sale in our large pavilion, rain or shine.

Write either one of us for catalog, mentioning American Breeder.

H. T. HINEMAN & SONS, Dighton, Kansas.
or D. J. HUTCHINS, Sterling, Kansas.

Auctioneers: R. L. Harriman, Bunceton, Mo.; E. E. Potter, Sterling, Kas.; John D. Snyder, Hutchinson, and J. W. Clouston, Ness City.

JACK AND JENNET AUCTION

Concordia, Kas., Feb. 28

30 - JACKS and JENNETS - 30

This stock ranges from 2 to 8 years old, and from 14½ to 16½ hands high. It is the kind of big, rugged stock used in producing the draft mules for which Kansas is becoming famous.

Everything will be registered or eligible to registry, and will be guaranteed as represented. Send to me for catalog at once, addressing

C. McNULTY

R. L. HARRIMAN, Auctioneer **Morrowville, Kansas**

Linn County Jack Farm

I have some good jennets and jacks for sale. They are extra large. Don't want to make any boast, but you can't beat them anywhere. Would consider a trade for some young Shropshire sheep.
W. M. THORNE, **Purdin, Mo.**

THE OLD RICHMOND JACK FARM

I make a specialty of breeding big registered jacks, with lots of bone; substance and finish. These jacks are raised right and all good servers. I also have at all times imported and American bred Percheron stallions. Prices right. Terms to suit.
W. H. SKIBINSKI, **Richview, Ill.**

JACKS.



20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.
Phil Walker, Moline, Elk County, Kas.

JACKS FOR SALE.

Seven first class jacks; ages one to six. Bred right; raised right. Priced to sell. Colts to show. Mares in foal for those of proper age. Also some good jennets; ages one to seven.
L. W. Garriott, Austin, Scott Co., Ind.

by law to sell them as long as the demand continues, the proceeds of the sale being for reprints. The Superintendent of Documents never gives away documents; he only sells.

5. The Division of Publications issues the last day of each month a circular called "Monthly List of Publications." This tells what the Department of Agriculture has issued during the month and how each document may be obtained. This circular will be sent regularly to all who apply. A request should be sent to the Division of Publications, U. S. Department of Agriculture, Washington, D. C.

AN OKLAHOMA JACK TALK.

To The American Breeder: Jacks are peculiar and very regular in their ways and habits. With slow serving jacks, have the place where service is rendered near to his box stall, and when the mare comes, go to his stall and bridle him. Don't leave the reins under his feet; go out and shut the door. Let him be quiet with nothing to bother. Try the mare with a stallion and put her in the pit; then go back after he is ready to serve. Now if he has been spoilt on jennets you may have a jennet at the breeding place for a time or two; but he may serve without the jennet. If he does, don't let him see either a jack or a jennet. Slow jacks should not be kept too fat out of the breeding season.

When you whip a jack let one lick be the only one and don't let that lick be over the head. Let him run in a good lot, well protected from winds so he can go out and in a good, warm stall with a door to shut him in during bad, stormy weather. Keep this stall well cleaned out and a good big bed. Don't let other stock run about his quarters to fret and excite him. Keep a good supply of cottonwood poles and brush, or quaking asp poles or willow poles and brush in his lot to browse on. You can turn them over for him.

In feeding jacks don't let feed lie in feed boxes. If a jack at breeding times goes to fretting, remember he mostly doesn't eat much grain in day time. He should have about all the grain that he could eat over night. Feed all kinds of good, pure roughness that he likes, but not too much at a time; pure sheaf oats; all kinds of pure hay and plenty of corn fodder and some cane hay; some oats and wheat bran. If he is thin and poor, grind some corn (coarse ground) and put a little with his bran and oats. When he gets a little slow on this, put a tablespoonful of salt and a teaspoonful of baking soda in a gallon of water. Put in a few ears of corn; let soak over night and he will mostly like this. When you see he is leaving his feed in the box, you are feeding too much; slack up a little and watch his appetite and feed all that he will eat in breeding time. The jacks and horses are just like you and I; they like a variety of something to eat and I think they should have it, don't you?

A word about jennets. As I have kept a close record of about 30 colts. The longest time I have that a jennet carried her colt was 13 months and four days. The same jennet carried for the shortest record—11 months, 22 days. Both colts were all right and were raised. The smallest colts I had was only 28 inches tall; the tallest only 37 inches; I think 33 a very good height. I think jennets carry their colts around 12 months as near as mares do 11 months.

I have seen jacks and stallions fret until they get very thin, and as a rule when they fret they are not sure foal getters. Sometimes when a mare has come and been served and starts away, he starts to waltz. He should be tied up after services until everything gets quiet. Great caution should be taken not to let him get this habit. When he gets to fretting take him out and walk around for a while. Give him a handful of green wheat, oats or rye to eat. Do this every day for jacks and horses in the breeding season; it is very good.

Don't cross-breed horses; breed them for what you want them for. When you are cross-breeding you are getting scrubs. I know all of us want a horse that will answer all purposes. This is something not often seen.—G. W. Knotts, Payne County, Okla.

TENNESSEE "CALLS" TEXAS IN THE JACK GAME.

To the American Breeder:—I notice in your very esteemed paper a likeness of a young jack, owned by Mr. S. M. Cooper, Johnson County, Texas, who seems to be making inquiry of some jack that can stand in the limelight with this yearling. In his letter, as published, the gentleman mentions that this jack could not be equalled, either in Kentucky or Missouri, and I, perhaps, would be forced to agree with him, but desire to call his especial attention to the fact that he did not include the greatest jack state in America, as Tennessee lays claim and rightly so as having produced the greatest jacks the world has ever known.

I do not know the breeding of his jack, but suppose he comes of the Mammoth strain. I wish to accept in the name of every jack breeder in Tennessee the gentleman's offer to "trot out" a yearling jack who is the superior of any jack to his age, either in Missouri, Kentucky, Kansas, Nebraska, Illinois, Ohio, Indiana and any other that he might care to mention. I shall offer a handsome prize of enough money to induce the unbeliever, that in Tennessee today lives, trots, walks, runs, jumps and gambols on the blue grass, a jack who can trim in the show ring any yearling in this country.

I shall send you the cut of this jack within the next few days with his complete measurements for the inspection of my esteemed brother jack fancier in the great Lone Star State and if he would like to realize the fanciest price that he will ever receive for his jack let him ship all the way to this point and we will sell him in our coming sale of February 21st, and if he brings more money at public auction than a "Yearling in Tennessee," the owner of the Tennessee jack will pay the freight on his jack to this sale and expenses of sale, cost, also entertain him highly and his jack with white clipped oats, clover hay, ground alfalfa, and corn if he chooses.

I will kindly ask the gentleman from Texas to with-hold his opinion for a few days, as he will see the exact likeness and if not satisfied, the proposition stands open. Understand, I congratulate him on his great yearling, and would not have taken exception to his remarks, if he had included Tennessee, and simply want to remind him that in the future do not overlook a state whose jacks stand unequaled.

The jack in question is entitled to his name, "Murray's Famous," and is a Mammoth-Starlight bred yearling.—J. J. Murray, Marshall County, Tenn.

SUPPORTING A FAMILY OF 17.

O. P. Russ of Panhandle, Tex., writing to C. L. Seagraves, Santa Fe colonization agent, 2511 Railway Exchange building, Chicago, says:

We have diversified our crops, combining stockraising, but all on a moderate scale, being intent upon learning the better method of farming so ably demonstrated by the representatives of the agricultural department of the Santa Fe System throughout the Texas plains. We have, under the advocacy of the Santa Fe men, adopted this motto: "Farm more intensive and not so extensive.'

Results have been highly gratifying, all things considered. Our invoice shows that we have made $1,000 annually above our living expenses—an expense that is by no means small when it is considered that our family consists of 17 members, my wife and myself, together with our fifteen orphan children.

Our crops have consisted chiefly

THE GREATEST SALE

BOTH IN QUANTITY AND QUALITY, OF



Jacks AND Jennets

To be held in the United States during the year 1914, will take place at my

Clover Leaf Valley Jack Farm, March 9

La Plata, Macon Co., Mo.

In the largest Sale Pavilion for this kind of stock in the world.

Having purchased the entire sales herd of L. M. Monsees & Sons of the Limestone Valley Jack Farm, and the right to their sales dates for the year 1914, I will sell the combined products of these two great farms.

I have in this sale more Jacks that are fit to head any herd of Jennets than was ever in one sale in America. ***Write at once for the greatest Jack and Jennet Catalogue ever published, giving the photograph of each Jack taken from life on the 2nd day of January, 1914, with his breeding.***

G. C. ROAN, La Plata, Macon Co., Mo.

JACKS AND JENNETS

FOR SALE. Registered Jacks; all blacks with white points; from 15 to 15½ hands; 3 to 5 years old; well broke, good as grow. Jacks by the great sires, Dr. McCord No. 1766 and Dr. Long No. 1767. Stock raised right and priced right. Farm one-half mile from station on C. & A. railroad.

DILLINGHAM & DEWITT,
Blue Springs, Missouri.

8--MAMMOTH JACKS--8

For Sale—from 3 to 5 years old; 14¾ to 16¼ hands standard measure; good breeding; broke right. Also a few jennets. One black imported 7-year-old Percheron stallion. Priced to sell. Stock in town.

L. W. HOYT,
BARRY, Pike County, ILLINOIS.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address

J. C. HUCKSTEP,
Eolia, Pike County, Mo.

MAMMOTH JACKS

For sale—Large, heavy boned, 15 to 16 hands high. Prices from $250 up. Located eight miles west of Cedar Rapids, Ia., near Fairfax.

JOHN HENRY, Fairfax, Ia.

THREE JACKS—FIVE JENNETS

For sale at reasonable prices. Five fine quality Mammoth bred jennets; from 3 to 8 years old; eligible to register. Two jack colts and one six year old jack; proven breeder.

J. M. HARLAN, Northboro, Iowa.

THREE JACKS FOR SALE—From 3 to 5 years old; about 15¼ hands high; large, heavy bone and registered. All black with white points. Price reasonable if sold soon. Address **S. A. FARNSWORTH, BLAIRSTOWN, MO.**

JACK FOR SALE.

Black, with white points; right age. Can't use him. Will sell right or trade for land.

R. W. HEDRICK, Cole Camp, Mo.

MISCELLANEOUS LIVE STOCK REAL ESTATE AND TRADES.

CLOSING OUT
AS I HAVE OTHER BUSINESS.

One registered Belgian stallion, 12 years old; has weighed over 2,000.

One registered saddle stallion; weight 1,260.

One 15-hand jack; extra heavy bone and feet and ears; with plenty of length and width. The jack is 12 years old and has never been crowded; is the surest jack I ever handled; good worker any kind of weather on mares; will work on jennets with mare for teaser.

Also one yearling jack, coming two, and three jennets; two jennets eight years old; one has raised four jacks, the other, three jacks and one jennet; the other jennet is three years old; one of these jennets will foal early, the other due in fall. All black with white points.

The above stock are all good breeders and sure. No trades.

O. T. KARR, Quitman, Mo.

BARGAINS FOR SALE.

Three stallions; two jacks and our big feed and sales barn, including our breeding barn, stock pens, sheds and wagon yard; all included covers two acres of land, 200 feet from depot; 50 feet from railway loading pens. Our breeding stock as follows, to-wit:

One German Coach horse, imported, weight 1,400; two Denmark saddle horses, Rex L. 2229, sired by Rex McDonald; Captain Denmark 3199, sired by King D. 1527. Two black Tennessee jacks, 15 hands, 4 and 9 years old; heavy bone; quick to serve and sure breeders. Right in every way. A paying business. Breed 350 to 400 mares each year; books and colts to show. Will sell all or will sell stock and lease barn and property to suit purchaser. Stock free from blemish; safe and sound, and sure breeders. Priced to sell. We mean business.

SHOWMAN & McCLAREN,
Doniphan, Ripley County, Mo.

FARM TO TRADE FOR JACKS, JENNETS AND DRAFT HORSES.

All stock must be registered. Would want to get a good herd jack in the trade. Must be a big one. Could use registered Percheron mares or stallion.

The farm consists of 110 acres, 7 miles from Kiowa, 70 acres of as good alfalfa land as there is in the country. 80 acres is bottom, 30 acres rough pasture. Good water and lots of it. 3-room house, small barn. This farm is too far (6 miles) from my home or I would farm it myself. It rents well and readily. Will sell if any one prefers to buy. My price is $3,500.

I. N. Green, Route 5, Kiowa, Kans.

BREEDING STOCK and STOCK FARM

For Sale—560-acre stock farm, the best in the county. Also 3 jacks, 1 saddle stallion, 1 Coach stallion and 2 Belgian stallions. This place and stock is for sale and will be priced right for quick sale.

ED. JOY, GOLDEN CITY, MO.

TO TRADE

Good, level, well located farm, all under cultivation, for Percheron stallions, mares or good jacks.

Lane Realty Co., Dighton, Kans.

LAND TO TRADE

For Registered Percheron Stallion, or good, young jack, 10 months old. I want to trade my equity in 20 acres irrigated land.

N. A. SCHWALD, Maxwell, N. M.

200 ACRES OF VIRGIN TIMBER

For sale; mostly white oak; near Rolla, Mo. Would take registered German Coach mares or a large jack in trade.

A. A. THOMPSON, Roodhouse, Ill.

of maize, kafir, wheat, oats and corn, together with garden products. We have planted fruit and ornamental trees, all of them doing well. We have had most excellent health, and have no desire to return to Missouri from the northwestern section of which state we came here three years ago, in search of cheaper lands for our family. We are well pleased with this section and find it well suited to our needs.

We raised with the milo maize seed furnished us by the Santa Fe this year, 44 bushels per acre.—Advertisement.

Live Stock Ills Discussed

Veterinarians Hold One of Their Most Instructive Meetings in Kansas City—Hog Cholera and Forage Poisoning Among Important Subjects Considered.

Three hundred and fifty veterinarians registered at the meeting of the Missouri Valley Veterinary Medical Association meeting in Kansas City, January 27, 28 and 29. The keen interest in the meeting was probably due to the interest in anti-hog-cholera serum and the presence of Dr. M. Dorset, Chief of the Biologic Division of the Bureau of Animal Industry, Department of Agriculture and the Director of the serum experiments now being conducted in Pettis County, Mo., Montgomery County, Ind., and Dallas County, Iowa.

Preliminary to the report of the Bureau work by Dr. Dorset, several interesting serum papers were offered. Dr. F. W. Caldwell, of St. Joseph, Mo., advanced the idea that the formation of abscesses following vaccination can be materially reduced by making the injection under the shoulder rather than in the ham. The reduction of market value of the animal because of abscesses following the injection of serum has been an economic factor of some consequence and the veterinarians of the cholera section have given a great deal of thought to the problem. Dr. Caldwell claims the percentage of abscesses can be reduced to one-half of one per cent (or only one in 200) by making the injection under the shoulder.

Two papers were presented on the question of dependability of state and commercial serum and virus, the one on virus by Dr. F. H. Hueben, of the Hueben Serum Company, of Kansas City, and the one on serum by Dr. D. W. McAhren, a serum producer of Des Moines, Iowa. The general thought was that both state and commercial serum and virus should be made to conform to standard regulations and that the state had the advantage in equipment and finance to produce a reliable product.

Some results of interesting experiments with serum and virus upon pregnant sows and pigs were reported by Dr. C. J. Sihler, a serum producer of Kansas City. Dr. Sihler has been experimenting for a number of years and his findings are of value to hog raisers. In substance his report was that pregnant sows may abort after serum and virus injection, that undesirable sequel resulting more often than otherwise. The use of serum and virus in pigs two months old and older was recommended as an effective way to handle infection chiefly because of the saving in loss, on account of the minimum value of the animal at that time, as compared with that of the mature hog.

A technical discussion of the effect of the amount of virus upon the duration of immunity was offered by Dr. George I. Blanchard, a serum producer of Kansas City. The chief thought was that a maximum dose of virus is advisable to produce the most lasting immunity.

A lengthy discussion of the amount of fee which should be received for injecting serum failed to result in any definite understanding. Widely varying conditions under which the veterinarians work make it difficult to arrive at a fixed standard of charge. In general terms regular milage charges with extra charge for service, either upon the basis of the number of hogs vaccinated, or upon that of time taken in doing the work. In either case, the cost of the serum should be borne by the hog owner.

Dr. J. W. Connaway, Dean of the Veterinary Department of the Missouri University and a pioneer in the serum work, declared that no effective control of cholera could be expected until serum usage was accompanied by the enforcement of the strictest quarantine regulations. This theory was advanced by Dr. A. T. Kinsley several years ago and probably contains the final solution of the cholera problem. Dr. Connaway called attention to the fact that all the contagious human diseases are controlled by quarantine, no matter what other curative treatment is used, and it is logical to suppose that animal ills should be handled in the same manner if satisfactory results are expected.

The report of Dr. Dorset offered a number of very instructive points relative to the source of infection in cholera outbreaks, the value of serum alone and simultaneous method of vaccination and the use of serum as a curative agent. As admitted by Dr. Dorset, the experiments have not yet been extensive enough to justify complete conclusions, but the results thus far indicate several things of interest; serum is of aid as a curative agent, just how serviceable has not yet been determined; the simultaneous method of vaccination is the more desirable where the infection has already gained access. In the matter of source of infection, the two chief factors were found to be man and birds.

Other than hog cholera, the chief center of interest at the meeting was food poisoning, especially silage poisoning. Papers were presented by Dr. R. P. Poage, of Shelbina, Mo., Dr. D. B. Morgan, of Neosho, Mo., and Dr. T. T. Christian, of Texarkana, Texas. A large number of veterinarians participated in the discussions. Dr. Poage suggested mineral deficiencies in the soil might be responsible for some of the trouble, especially in cases showing decided acidity of the stomach content. He recommended correcting the condition by feeding lime or other alkaline salts with the food stuffs.

Dr. Morgan considered the improper handling of silage to be responsible for a great deal of the silage poisoning cases in Missouri. The silo is a comparatively new proposition in many localities and trouble will likely arise frequently until the farmer learns how to cure and feed silage. Many practitioners agreed with Dr Morgan that the silage should be fed immediately after taking from the silo and that uneaten particles should be removed after feeding.

Dr. Christian's paper had to do with cotton seed poisoning and is not of great interest except in the south where the product is cheap for fattening. It has been found that the addition of certain mineral salts to the cotton seed meal will reduce the chances of ill results and it is hoped that eventually cotton seed meal will

GOOD SHORTHORNS.

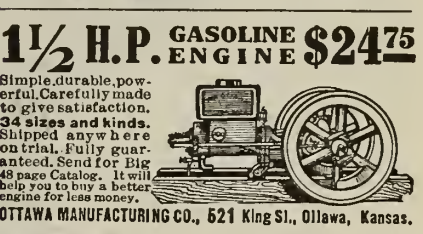
Pratical cattle for both beef and milk. Just the kind the farms of the country need, and with breeding and conformation to make show cattle if you want them. I show my breeding stock successfully, but no stock is ever crowded enough to hurt it.

Pleased to show stock, quote prices and answer inquiries at all times.

C. H. White. Burlington, Kas.









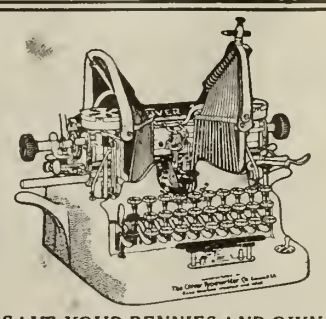
17 CENTS A DAY Buys an OLIVER

The Standard Visible Writer

Can you spend 17 cents a day to better advantage than in the purchase of this wonderful machine?

Write for Special Easy-Payment Proposition, or see the nearest Oliver Agent.

The Oliver Typewriter Company
102 West 9th Street KANSAS CITY, MO.



SAVE YOUR PENNIES AND OWN
The OLIVER Typewriter

become a harmless food stuff for fattening cattle.

The meeting closed with an all-day clinic at the Kansas City Veterinary College on Thursday, January 29th, and those who attended voted the meeting the most successful in the history of the organization.

THE FIGHT FOR HOG HEALTH.

(Continued from page 7.)

ease. This serum requires special treatment to preserve its quality and a qualified man to produce it. Sufficient serum to treat an average hundred-pound hog costs about thirty cents at a liberal estimate. The treatment is by hypodermic injection.

The department, in initiating its campaign against the devastating hog disease, has only been able to commence in a few of the districts where the cholera was the most widespread and where the active co-operation of the state was offered in enforcing the ordinary quarantine measures, etc.

The object of the department has been to endeavor to control the disease and, if possible, to eliminate it from the country. To secure this end the best efforts of the farmer himself are necessary. The campaign against this devastating sickness during 1913 was planned in the territory selected along three lines, viz:

1. The education and organization of the farmers in the districts selected, to be carried out primarily by the State College.
2. The enforcement of sanitation and restrictive regulations by the State veterinarian.
3. Active supervision by the Bureau of Animal Industry of the Department and the inoculation of diseased herds and exposed herds with the anti-hog cholera serum.

A county in each state was selected as a unit and the method of work in that county was, briefly, for the state college to secure the co-operation of intelligent, active farmers in each township in the county. These men were called volunteer assistants and they were to keep in close communication with the department's inspector stationed in that area, keeping him informed of conditions and securing statistics concerning the hog industry. In this manner, conditions were pretty well learned in the territory under inspection. When an outbreak of hog cholera was reported and the department's inspector went to that outbreak and saved all the hogs he could by treatment with serum. As the disease is very easily transmitted, he then protected all herds in the immediate vicinity by inoculation. The idea was to form a zone of immune animals around the infected center.

Hog cholera is caused by a germ that exists in the blood. It is an organism apparently so small that the most powerful microscopes do not show it. However, it is easly to demonstrate its presence by inoculating a small part of the blood from a sick hog into a well one, which produces the hog cholera.

Hog cholera is a disease which seems to be stopped to a degree by the frosts of winter, although frost cannot be said to stop a case after it has taken hold of its victim. However, it seems to prevent the rapid spread of the disease. The result is that in spring time the affection is as a rule at the lowest ebb but increases rapidly from that time until fall.

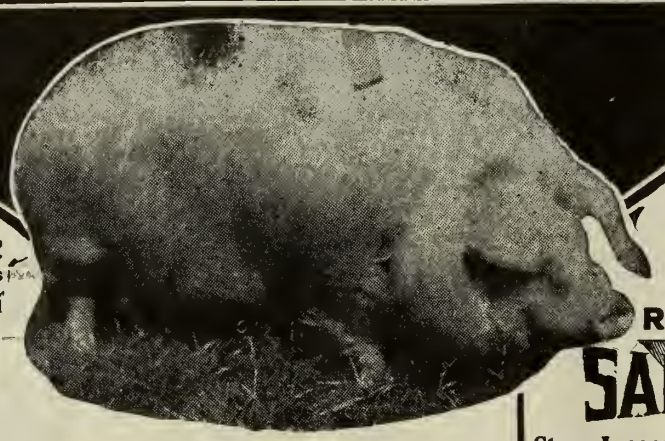
Hog cholera does not seem to affect any particular breed of hogs more than another, and while generally the careless farmer is more apt to have the disease among his hogs than the careful one, the disease sometimes occurs where the conditions are sanitary. It is hoped that the work may be extended gradually until the diseases is completely controlled or eliminated. The fact that hog cholera is carried not only by the hogs themselves, but by birds, dogs, streams and even on the feet of men going from one farm to another shows how necessary it is that the campaign be thorough and that farmers exert their best efforts to assist in the work.

PREPARATION OF LAND FOR ALFALFA.

Those who intend to have alfalfa—or more alfalfa—this year, need to begin thinking about it now, and the following suggestions from Prof. Alvin Keyser of the Colorado Agricultural College should be studied and followed in the sections to which they are adapted.

The preparation of the seedbed is the most important single operation in the process of getting a stand of alfalfa and keeping it. On the irrigated lands the plowing should be deep, 8 to 12 inches. The plowing, if done in the spring, should be done as long before seeding as possible. For irrigated lands the plowing should be thoroughly double disced. This should be done especially on the loams and heavier lands. If not done, there is a strong tendency for more or less of a crust to form. The result is a considerable loss of tilth or proper physical condition. Often this can only be restored by a season of winter when the freezing and thawing will break down the clods formed. In order to thoroughly compact and pulverize the soil, the plow should be allowed the same half day with the disk harrow and the spike tooth harrow. This treatment, if well carried out, will produce a deep seedbed, well pulverized and compacted below the surface and loose at the immediate surface. Such a seedbed has a subsurface free from the air spaces. There is no compacting agency as good as nature and time, so if such a seedbed can stand for a month or six weeks prior to seeding, it will be in even better condition for planting than when first prepared. In the event of heavy beating rains which form a crust prior to seeding time, the

Protect YOUR Hogs From Disease!



"This is a photo of my aged sow, winner of the first prize at the Minnesota State Fair, 1913. When I arrived home from the fair, my herd was sick with cholera. I started to feed 'SAL-VET' regularly, and was fortunate enough to save six of my best aged sows, among them, my two first-prize winners, also some of my young sows, and my herd boar, 'Famous Lad' besides a few other boars. 'SAL VET' is all you claim for it, and I will not be without it."—Louis Anderson, Prop. Greekview Farm Herd O. I. C.'s, R. 1, Jackson, Minn.

"SHOW ME" 1st Prize Winner Minnesota State Fair 1913 Owned by Louis Anderson

I'll Help You Prevent Your Losses
I'll Get Rid of the Worms in Your Stock
I'll Prove It Sixty Days Before You Pay

NOW is The Time for you to get rid of the deadly stomach and free intestinal worms—the pests that sap the strength and vitality of your farm animals, making them easy victims of cholera and other diseases.

Read these Letters. They prove that "a stitch in time saves nine."

"A lot of hogs died in this country from swine plague or cholera. Some of them were within three miles of me but I have been feeding Sal-Vet and have not lost a single hog."—D. A. ROSS. Kingman, Kan., Breeder of Pure Bred Poland Chinas.

"As the hog cholera is prevalent all through this section, I have heen feeding Sal-Vet to my hogs. Since then, I never saw them in better condition, in spite of the fact that all around me the cholera is carrying them off by the hundreds."—W. J. BROOKS, Diggs, Va.

Hogs ***free from worms*** are best protected against Cholera and Swine Plague and most apt to recover when attacked. Read the letters in the next column. ***Worms are your greatest enemies***—worse than cholera—they are everlastingly stealing your stock profits—weakening your farm animals and keeping them from putting on flesh. And worst of all in times like this when cholera breaks out in your neighborhood, you may lose hundreds of dollars in a few days just because your animals have been robbed of their fighting strength and vitality by ***worms.***

SAL-VET

The Great Worm Destroyer and Conditioner

will drive out these pests quick. I'll prove it on your own farm, with the money in ***your pocket.*** Worms can't live where Sal-Vet is used. It is the best kind of cholera insurance you can find. It will put every animal on your place in a thrifty condition. They'll gain faster—grow into money quicker, make you more profit. Read my offer.

Don't Send Any Money—Just Send This Coupon



S. R. FEIL Pres.

I'll Feed Your Stock 60 Days Before You Pay

If you will fill out the coupon below—tell me how many head of stock you have—mail it to me, I will ship you enough Sal-Vet to last them 60 days. You simply pay the freight charge when it arrives. Let your stock run to it freely according to directions and at the end of 60 days report results. If Sal-Vet does not do what I claim, I'll cancel the charge. You won't owe me a cent.

SIDNEY R. FEIL, President

THE S. R. FEIL COMPANY, Manufacturing Chemists
(149) Dept. AB Cleveland, Ohio

Sidney R. Feil, Pres., The S. R. Feil Co., Cleveland, O.

Ship me enough "Sal-Vet" to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days and at that time pay for it if it does what you claim. If it does not, you are to cancel the charge.

Name .....
P. O. .....
Shipping Sta. ..... State .....
Number of Sheep .....
Hogs .....
Cattle .....
Horses .....

AB 5-14

Read How SAL-VET Stops Losses Among Farm Animals

"Hog cholera has been all around me and I have not had one sick hog. I cannot praise "Sal-Vet" too highly, and I do not hesitate to recommend it to all hog raisers."
A. O. Kellogg, Troy Grove, Ill.

"Last year I lost all of my hogs from cholera. This fall and winter I have been feeding "Sal-Vet and lost none."
Cleveland Rice, Scott, Ohio.

"My neighbors, who have NOT fed "Sal-Vet" have all kinds of trouble with their hogs—many of them getting lame and stiff, and would not eat. I think "Sal-Vet" is great stuff."
Harry E. Townley, Cambridge Springs, Pa.

"I have fed "Sal-Vet" to my sick hogs and found it very beneficial. Before your remedy arrived nine of my hogs died. Since feeding the preparation I lost but one more and the balance are in fine hearty condition."
(Signed) Joseph Walter, Route No. 2, Box 33, A, Freeburg, Ill.

"I have just finished feeding the 200 pound barrel of "Sal-Vet." My hogs are the only ones left in this immediate locality. I haven't lost one."
James F. Martin, Little York, Ill.

"I did not for a minute expect such results as I obtained from your SAL-VET. It expelled more worms from my hogs than it would take to fill the keg it came in. I will order more soon for it is a great preparation."
Geo. B. Coffinbarger, Shepherdstown, W. Va.

"When I received your SAL-VET my hogs were very unthrifty—but they did not stay that way long after feeding SAL-VET. I never had pigs do so well. They were soon in top condition. My horses also improved on it fine. It sure does get rid of the worms. Please send me another barrel at once.
D. P. Copp, Carrol, Iowa.

"I had a lot of sick hogs and I lost five of them. I began feeding them SAL-VET, my losses stopped and the hogs soon got into a fine, healthy condition.
"SAL-VET did the same for my sheep and horses and several of my neighbors have had the same experience with it."
V. P. Underwood, Roachdale, Ind.

MR. SIDNEY R. FEIL
Pres. The S. R. Feil Co.

is a practical Pharmacist, registered under the Ohio State Pharmacy Law, a graduate of the Cleveland School of Pharmacy and of the Notionel Institute of Pharmacy. He has heen engeged in leboratory werk for more than twenty-five years and was formerly assistant to Dr. Nathan Rosewater, former Chemist of the Ohio State Deiry end Food Commission. Try genuine SAL-VET 60 days before you pay. Take no substitute.

PRICES 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12
Special discount for large quantities.
No order filled for less than 40 lbs. on 60 deys offer. Never sold in bulk; only in Trade-Marked "Sal-Vet" Packages. 60 day trial shipments are based on 1 lb. of Sal-Vet for each hog or ebeep and 4 lbs. for each borse or bead of cattle as near as we can come without breaking regular packages.

Alfalfa Seed

Dawes County, Non-irrigated Alfalfa seed cane, millet and sweet clover seeds. Baled alfalfa hay, all cuttings. Prices and samples free.

SCHWABE BROS., CHADRON, NEBR.

Seeds Shipped On Approval

Medium red clover, big English clover, alsike clover and timothy seed. Boone County white and Reid's yellow dent tested seed corn. Write for samples and delivered prices.

J. W. RICHARDS, Ferris, Ill.

Alfalfa Tiller That renovates, mulches, stimulates, without injury to plant. Catalog Free. **Light Draft Harrow Co., Marshalltawn, Ia.**

ALFALFA AS A MONEY MAKER

Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Building, Kansas City, Mo.

surface should be again put in condition by disking and harrowing.

If the supply of soil moisture is not sufficient for proper germination, the land may be irrigated prior to seeding. As soon after irrigation as the condition of the surface permits, the land should be disked and harrowed to prevent the formation of a crust and to produce a soil mulch which will retain the soil moisture and conserve the surface tilth.—Alvin Keyser, Colorado Agricultural College.

HATCH SOME EARLY CHICKS.

To the American Breeder:—If you want a few pullets to lay in the fall when the old hens are moulting, if you want a few birds to win prizes for you at the early fall fairs and shows, if you want a few pullets to enter the next egg laying contest and have them ready to lay from the very beginning, we would advise hatching at least a few early chicks. We think this is one mistake which most of the Western breeders make, they do most of their hatching in May and some even much later than this. The eggs are usually a little larger earlier in the season, the hens have not been laying long and they fill the egg full of meat and vitality, the chicks hatched from them are stronger and grow more rapidly. In this section of the country, we always have less trouble in raising the earlier chicks. One of our largest and most successful farms never hatches anything after April 15th. The result is they have a lot of mature pullets which lay in the fall and winter when eggs are high. The poultry farmer should endeavor to have his pullets blossom just at the right time (when eggs are high), just as the florist has his flowers blossom and ready to supply the demand at Easter time. He doesn't have them blossom a month before nor a week after.

It is useless to go into one of these contests unless you hatch some chicks in time to mature by fall. One of the biggest and most successful breeders in this country said to me, "I make more out of my early hatched stock than from any other. I hatch them early, then I have them for sale when the other fellow hasn't got them. They are not so particular about the quality of the early show birds for as a rule at the fall fairs and shows the big bird will win over the smaller. one of better quality." If you started out on a five mile run, you would start out fresh, you would be quick and active, and it would be no effort for you to run, but the further you go, the weaker you would become and at the end of the five miles, you would be "all in." Just so with the hen. In the early part of her laying period, she is fresh and vigorous and stores all the vitality in the egg and germ that her constitution permits, but later on, she is weakened, she hasn't the vitality, she had earlier in the season, and her weakened condition does not permit her to store the vitality into the germ and the egg that she once did. Much of the trouble which we have with sick, weakly, runty chicks is due to this very thing. The destiny of the chick is largely determined by the vitality of its parents. Hatch at least a few early chicks. T. E. Quisenberry Wright County, Mo.

SELECTING BREEDERS.

To the American Breeder:—It is not too early to select the hens you intend using next season as breeders. It will be too late about the time you are ready to set the first eggs, if raising early and productive stock is your object. Then you will not know which pullets matured quickly, and laid early and persistently, nor the hens that hurried through the molt and came back to business quickly; now is the time to select these. Visit the hen house occasionally and band the pullets found to be laying; you will soon learn to know those that lay often without looking at their band numbers; these should be used as breeders next season.

Don't wait until hatching time to sell your surplus poultry; do it now—all the old hens and all but a few of the best males. As these mature and show their good points, cull again, reserving only enough to head a choice pen of the best laying hens and pullets. Build a small colony house on 2x8 runners and haul it out into the orchard, fencing it in. Fifteen to twenty-five hens kept here will lay more eggs during the hatching season than the average farmer's wife will know what to do with.—W. E. Vaplon, Poultryman, Colorado Agricultural College.

SALT MAY KILL CHICKENS.

It does not seem to be generally known that an excess of salt will kill chickens, writes Dr. I. E. Newsom of the Colorado Experiment Station at Ft. Collins. Very frequently we get word from people who have had the experience of losing large numbers of chickens from simply giving them too much salt.

This is never done deliberately, but comes about in a most innocent way. For instance, one woman baking a cake and made the mistake of putting in salt instead of sugar. When the error was discovered, it was of course found that the cake was unfit to eat, and as a consequence it was thrown to the chickens. Practically all of the chickens died as a result.

In another case, some ice cream was ordered and the salty water which was left in the freezer was poured into the chicken feed, with the result that the next morning practically all of the lady's chickens were dead.

So we might go on with these instances; but this is enough to show what the deadly effects are when chickens get too much salt. Chickens will seldom deliberately eat salt in its pure form, or drink enough salty water to kill them, but when it is mixed with their food, it nearly always proves fatal.

It would seem that a little more publicity would save a great many more chickens.

LESSONS IN TWO YEARS OF EGG LAYING CONTESTS.

To the American Breeder: A gain of nearly ten eggs per hen over the average of the first contest, was made in the second National Egg Laying Contest, which just closed at the Missouri State Poultry Experiment station at Mountain Grove. The hens averaged over 143 eggs per hen, which is twice the number of eggs laid by the average farm hen. This increase would indicate that poultrymen everywhere are devoting more time and attention to selection for egg production and constitutional vigor. We believe we will see this average increase from year to year. We had at this station over 100 hens which made an average of 225 eggs per hen last year. We had several flocks of 30 to 50 hens each of different varieties which averaged 150 to 175 eggs per hen. We believe that the average poultryman has just begun to realize the possibilities of careful breeding and selection. Last month we predicted that before long the 300-egg hen was a possibility and would be heard from in the near future, and this month the news comes from a reliable source that one hen has laid 303 eggs in 365 days.

A dainty little R. C. White Leghorn pullet No. 55, from Maryville, Mo., worn and ragged because of her year's hard work, and weighing only 2¾ pounds, won the prize for the best individual record with 260 eggs. She laid twelve times her own weight in eggs. She manufactured more pounds of eggs in proportion to her body weight than any hen in existence. A S. C. White Leghorn from England was second with 258 eggs; a Buff Wyandotte from Vermont was third, with 255 eggs; a Buff Wyandotte from Missouri was fourth, with 253 eggs, and a S. C. White Leghorn from England was fifth, with 246 eggs.

The S. C. White Leghorns from Catforth, England, made the best pen record (ten hens to the pen) with 2,073 eggs. Seven of the ten hens in this pen laid over 200 eggs each. One of the hens in this pen died, and one was out of condition for some time, and nearly all went into a moult about two months before the contest closed, and these things all tended to lower their record, but in spite of these facts, they were 189 eggs in the lead of their nearest competitor. Buff Wyandottes from Missouri won second prize, with 1,884 eggs to their credit; Silver Wyandottes from Iowa were third, with 1,877 eggs; White Wyandottes from Arkansas were fourth with 1,759 eggs, and R. C. White Leghorns from Missouri were fifth with 1,724 eggs.

There is nothing especially sensational about any of these records, and we are glad that there is not. They are just such records as any poultryman can achieve who practices good, sensible methods of housing and feeding, and who devotes some thought to selection and breeding. Sixty-four hens laid over 200 eggs each, or over 10 per cent of all which were entered in the contest went over 200 eggs. A pen of S. C. Rhode Island Reds from Florida won the silver cup for November, the closing month, by laying the most eggs that month.

The hens in the last contest consumed on an average 36 pounds of grain each (about a pound more than the previous year) and about the same amount of dry mash. The accompanying table gives the comparative showing made thus far by the various breeds represented.

Table Showing Breed Record Made in Eggs per Hen.

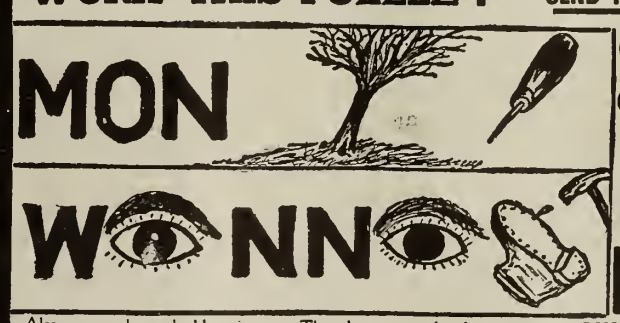
	1912	1913
S. C White Leghorns averaged	143	173
Silver Wyandotes averaged	160	172
Buff Wyandottes averaged	000	167
Black Langshans averaged	156	160
Black Minorcas averaged	145	158
White Wyandottes averaged	125	151
Anconas averaged	139	149
Barred Plymouth Rock averaged	126	148
R. C. White Leghorns averaged	127	146
S. C. Brown Leghorns averaged	122	144
R. C. Reds averaged	150	142
All White Orpingtons averaged	150	140
Buff Plymouth Rocks averaged	120	139
S. C. Reds averaged	156	139
Buff Orpingtons averaged	147	134
White Plymouth Rocks averaged	118	132
S. C. Buff Leghorns averaged	115	128
Black Orpingtons averaged	155	128
Partridge Plymouth Rocks averaged	124	110
Partridge Wyandottes averaged	99	110

The egg yield by months:

	1912	1913
November	3,118	1,711
December	5,082	5,215
January	3,203	7,016
February	6,442	8,666
March	10,828	12,889
April	12,458	12,997
May	11,478	12,455
June	9,798	10,411
July	8,873	9,687
August	7,015	7,691
September	5,716	6,424
October	3,832	4,652
Totals	87,943	99,814

T. E. QUISENBERRY,
Missouri Poutlry Experiment Station.

WORK THIS PUZZLE ! SEND NO MONEY ! !



$50 CASH PRIZE

Also many other valuable prizes. The above two sketches represent TWO CITIES IN CANADA Can you tell what they are? Surely you can solve this PUZZLE, SO DO SO. If you can make out the names of the Two Cities we will send you a BEAUTIFUL PICTURE POST-CARD FREE—also a certificate of entry in our PRIZE CONTEST. Somebody who sends for the particulars of this PRIZE CONTEST telling us WHAT TWO CITIES ARE REPRESENTED by the above Two Sketches, will receive a **$50 GOLD WATCH or $50 IN GOLD MONEY** as per the certificate, and in the event of a tie between two or more persons for the prize, a prize identical in character and value with that tied for will be given to each person tied. Try at once. It may be you. Send your answer on Postcard or letter, write name and address plainly

GIVEN AWAY.

Dominion Watch Co., Dept. 2 Montreal, Canada

CHARGES SMALLER FEE—IN CASH.

To the American Breeder:—Your fight for the rights of the breeder—the owner of what constitutes over one-half the herd—is productive of good results, and the influence of your leadership is only beginning to be felt; that is, to what it will be when all breeders wake up to the real importance of the issue.

Of course, there was a time when, with low-priced grain, grazing and roughage, Farmer Brown would have deemed it an insult for Neighbor Smith to have charged him for allowing his boar or his bull to do service in his herd, but the time has come when all articles of feed are so high in price, and the standard of all farm animals has been raised to such a high level (or, at least, ought to be), that we must in all reason charge for the services of our breeding animals of all kinds.

Any farmer who is a pretty extensive stock-raiser well can afford to keep sires for his own, individual use, and they will more than pay for their keep every season; at the same time, it is unfair that his neighbor (of perhaps as high financial standing) should make use of those males without adequate payment. This has been one of the most discouraging features of keeping pure-bred sires. The farmer who keeps such animals soon has more breeding than is good for their health, strength and vigor. They become run-down, low of vitality, deficient in breeding qualities, and their influence on the herds of the surrounding neighborhood is most demoralizing.

There is one course, however, which the writer has found works well. We charge about one-half what most breeders do for the service of a male, and that fee is payable as soon as the service is rendered, the owner of the bred animal having the privilege of returning with his female till he is satisfied. This avoids two common drawbacks to the keeping of high-class sires: It guarantees to the owner a reasonable fee, which he can apply toward the feeding of the animal, and, at the same time, will act as a check on so many bringing their females to be bred. Of course, some farmers will grumble; some will refuse to breed under such terms, and still others will try to induce you to make exceptions to the rule. But the one and only way to do is to "keep in de middle ob de road"—treat everyone exactly alike—and you soon will have smooth traveling. Your breeding animals will be stronger and more vigorous, and they will pay their way in cash, leaving their services on your own herds and flocks as clear profits—as they should be.—M. Coverdell, Ringgold County, Iowa.

REACHES THE PROSPECTIVE BUYER.

To the American Breeder:—I had very good success with the ad I placed in your paper this winter. Had many inquiries from three different states. Sold the Percheron mare and undoubtedly would have sold the show saddle filly only for her meeting with a temporary injury during that time. The American Breeder reaches the prospective buyer.—George Dennler, Kenton County, Kentucky.

LAND HIGH BUT TIMBER NINE TIMES HIGHER.

What was said to be the largest stand of clear walnut timber in the United States was sold recently for the purpose of dividing the S. Makemson estate near Danville, Ill. The walnut alone brought $65,703 and oak and ash timber in the same grove raised the total to $92,500. The land on which the timber stood brought $10,000.

Considering that in four lines of business out of five, not counting "skin games," stock gambling and plain thievery, the general idea has been that the public's part is to be the victim, it certainly sounds queer to hear bankers and brokers seriously calling the attention of the farmer to his solemn duty to feed the world—and keep food prices down where the World can't kick.

HORSE DRIVERS' RULES.

The following rules are prepared by the Boston Work-Horse Parade Association, whose office is at 15 Beacon Street, Boston, Mass. Copies of the rules will be sent free on application.

1. Start at a walk, and let your horse walk very easily for the first half hour.
2. A heavy draft horse should never be driven faster than a walk, with or without a load.
3. Look to your harness. Avoid these faults especially:
   Bridle too long or too short.
   Blinders pressing on the eye or flapping. (An open bridle is best for most horses.)
   Throat-latch too tight.
   Collar too tight or too loose, or dirty on the inside.
   Shaft-girth too loose.
   Traces too long.
   Breeching too low down or too loose.
   Inside reins too long, in the case of pairs.
4. Do not let your horse drive himself; but handle the reins gently. Never jerk the reins; to do that is the sure mark of a bad driver.
5. Try to deliver your load with as little backing as possible. Backing a heavy load is apt to strain the hind legs.
6. Take the horse out of the shafts as much as possible; and if you drive a pair or four, unfasten the outside traces while the horses are standing; they will rest better that way.
7. Teach your horses to go into the collar gradually. When a load is to be started, speak to the horses and take a firm hold of the reins so that they will arch their necks, keep their legs under them, and step on their toes. A loose rein means sprawling and slipping, often with one horse ahead of the other.
8. Water your horse as often as possible. Water in moderate quantities will not hurt him, so long as he keeps moving.
9. Blanket your horse carefully when he stands, especially if he is at all hot. Repeated slight chills stiffen and age a horse before his time.
10. Bring your horse in cool and breathing easily. If he comes in hot, he will sweat in the stable, and the sudden stoppage of hard work is bad for his feet.
11. In hot weather or in drawing heavy loads, watch your horse's breathing. If he breathes hard, or short and quick, it is time to stop.
12. Remember that the horse is the most nervous of all animals, and that little things annoy and irritate him. Remember that he will be contented or miserable accordingly as you treat him.

PUBLICITY FOR THE DRAFTER.

(Continued from page 4.)

the production of our highest priced mules is one of the most important arguments in its favor. The American Royal Draft Horse Show last fall furnished one of the most striking examples of this fact. As far as we could learn by making careful inquiry, almost every prize winner in what is conceded to be the most high class mule show ever held, was out of a mare carrying draft blood. Some were out of very nearly full blood mares. It was the draftiness of the mares, added to the undoubted quality back of both mares and jacks, which put the premium on the ten head bought by Mr. W. R. Crackel of Indiana at the record-breaking price of $3,800.

A man's attitude toward other interests than his own, has an important bearing on the consideration which the world will give his interests, and opinions, and also his achievements. Legitimate advertising and pushing of your own live stock is approved, as an evidence of enterprise and a matter of business, but begin directly to decry some other interest and you weaken your position. I do not mean by this that any man should stand for crooked competition or misrepresentation. This, in common honesty, calls for an attack, not upon the thing which the other fellow has, but upon the methods he employs. Draft horse men have no fight against the automobile, the saddle horse, or against any other good live stock that fills a legitimate place in business or pleasure. This is too big a world for friction to exist between the good things which make it up. And (getting down to details) those who own Clydes or Shires have no quarrel with the Percherons or the Belgians. To ascribe to a breed the faults we find among its less desirable individuals, is either ignorance or jealousy. In all breeds where business is active and competition keen, the faults of conformation are apt to be disappearing faults, for the effort of every live breeder is to cull them out and breed them out. Likewise, among the owners of draft stallions, standing for public service, any rivalry which goes beyond a good-natured competition to get the best class of mares and (as a result) produce the most good colts, is likely to react. The biggest object to be achieved is to get the mare owners' co-operation

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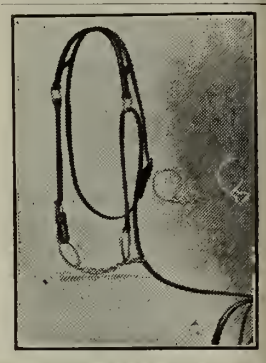
If you have a good photograph of your stallion, jack or any other animal, or of your house, barn or yourself, we can make you a cut from it, any size you want. **$2 pays for such a cut 3x3½ inches, or smaller, if photo is clear. Larger cuts in proportion.**

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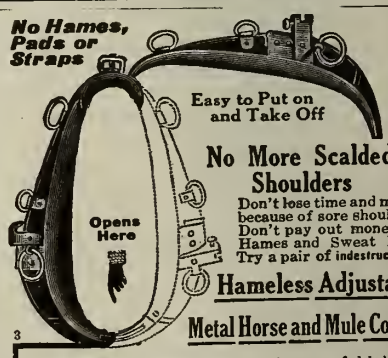
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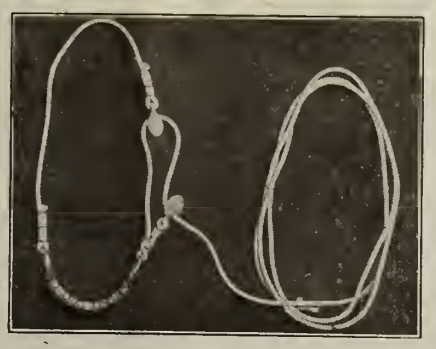


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(if you really have brought them stallions that warrant it) and then work with them for more colts, better colts, better cared for mares and colts, and finally a class of horses in the community that will bring the best buyers and make them compete for what you have to sell. Many a community in the United States has done this, and in those communities the best farm profits in horses are made.

Exhibitions, and direct advertising through various uses of printer's ink, are so much associated that we will consider them together, but not at much length. Either one is subject enough in itself for a complete paper, but a discussion from experience is the best way to bring out the facts in both. Exhibiting animals is almost always a mixture of public service and good advertising, so far as it is beneficial. Few men exhibit primarily for the money they can win. Of such there is really only one distinct class. To it belongs the fellow who waits to learn the rings at his county fair in which there will be no competition, and then slips in with just enough animals to fill the openings. Usually his animals have been so brought up that they do not mind three or four days at the fair without feed or care. This reduces his expenses to the minimum, so that he pockets a cash profit. The rules of most fairs afford a remedy, but too few superintendents have the nerve to instruct a judge that he must not award premiums to animals that are clearly not deserving. The foregoing can be considered only as an example of how not to exhibit, and so no further details are needed here. It is well to remember, however, that an exhibit of this sort hurts any breed to which it pretends to belong, and it is worth while to cause a few hard feelings if necessary by insisting that rules governing such cases be observed. No one man ought to have to do this. Such a cheap practice is disgusting enough to incite a riot.

Of all kinds of draft horse exhibits, the colt show is the livest proposition known, and its influence has brought improvements in county, state and national shows. There is still plenty of room to improve, and the opportunities to make colt shows more interesting and instructive are almost without limit. Following and combining the examples which some private colt shows have set, a county fair association could profitably organize its draft horse division to cover something like the following:

It should first carefully canvass its territory and see what classes were necessary to provide for the pure-bred breeding animals, giving each breed a classification, say for three ages, but allowing neither ribbons nor money to be awarded except for merit. Two classes for teams in harness (mares or geldings only) could then be made, the lighter one open to grades only and the heavier open to grades and pure breds. These could be for horses under, say 1,600 pounds, and horses of that weight and over. Three grade classes each could be made for colts and yearlings sired by draft stallions, as follows: One for colts from mares under 1,200, one for colts from mares 1,200 and up to 1,450, and one for colts from mares 1,450 or more. The draft horse men of the county should see to it that the prizes for colts out of the 1,450-pound mares should be slightly more than for colts out of mares under 1,450. Mares above that weight are the ones that begin to give a draft horse reputation to a neighborhood and it pays to recognize them. A championship class can also be provided, to which the only first prize winning colt from each of the other classes should be eligible, and in this class only one ribbon should be given. Another mighty interesting class is for a brood mare and two or more colts. In such a class it might be well to require that at least a sucker and a yearling be shown with the mare, the mare to count one-third of the entry and the colts (two or more) to count two-thirds. This requires a mare to show that she can repeat on the good ones, and at the same time does not put a young mare at too much of a disadvantage. Then the draft horse men should co-operate in the mule show in some way to bring out the influence of draft blood in the mares. It might not pay to take any part in the class for suckling mules. Dairy quality in a mare often has more to do with making a suckling winner, than does form or the quality of bone and muscle, but in classes for yearlings and two-year-olds, some good special premiums paid for best mule *shown with its dam* ought to bring out some lessons that are worth while.

These are just suggestions for helping a county fair to bring out the benefits of good draft blood in a farming community. If they are to be carried out with good effect two or three special facilities must be provided. First the judge must be as fully competent as it is possible to find. Nobody can be found who knows too much. Probably the best way is to apply to the animal husbandry department of your state college, and make it plain that an absolutely competent man is desired, and that you expect to pay him for good work. Good judges can also be found among horse market men who have had a breeder's or feeder's experience. Scales should be used, if possible, to determine exact weights. Any scale company will set up a good pitless scale on your grounds for the sake of the advertising. If the superintendent will organize his work be can weigh up and tag a lot of stuff in an hour. The classes outlined call for weights of only teams, and the dams of entered colts, but weights on every entry card lend interest and help the judge. The exhibits, both in stalls, and in show ring, should be so handled as to give the public the best possible chance to see. It is the public interest and approval you are after. Signs and show cards at the stalls should tell the passerby the things he wants to know, and space along the stalls should be kept cleared and clean. Falling over manure piles and cracking shins on feed boxes in their efforts to penetrate the mysteries of blanketed and unplacarded exhibits, has discouraged many possible customers who sought to satisfy an inborn interest in better animals by visiting the live stock exhibit.

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If you buy wire fence from any local retailer, or any mail order middle-man, you are needlessly spending **two** dollars where **one** would bring you the same quantity and quality!

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In the first place, I buy all of my wire direct from America's greatest wire mills in train load lots, when the market is at the very lowest point. During the dull season of the year, this wire is made up into fence at my big factories in Brazil, Ind., and Ottawa, Kansas, and from these points is distributed in car load lots to my warehouses in Denver, Colo.; Fort Worth, Texas; San Francisco, Calif.; Lincoln, Nebr. Every roll of fence is carefully inspected, measured, and tagged ready for shipment. Every order received by me is immediately forwarded to the nearest distributing point and shipped direct to the customer with **only one small factory profit** added.

The great national business which I do direct with the farmers all over America, enables me to operate on a small margin of profit—giving my customers the very best wire fence that can be made at a saving of from 50 to 100 per cent on average retail prices, and still have a reasonable margin left for myself at the end of each season's business.

Every Rod Guaranteed Perfect—Money Refunded if not Satisfactory!

Every rod of wire fence that leaves either of my factories, or warehouses, is backed with a positive, iron-clad, quality-proving, money-back guarantee. Only the highest quality spring wire is used, every piece is thoroughly galvanized and warranted to withstand all weather conditions.

Every rod of Ottawa fence is made by my own patented process. The Ottawa non-slip tie is guaranteed to hold under any and all conditions.

You do not take a particle of risk when you send me an order for Ottawa fence. I not only save you from 50 to 100 per cent on what the same quality of fence would cost you anywhere else, but I guarantee that you will be absolutely satisfied in every way with every rod of fence you buy from me. If you are not satisfied for any reason whatever, it is your privilege to return the fence, and I will pay transportation charges both ways, and refund every cent you have paid me.

And that guarantee is in full force for all time—it is just as effective five years from the day you put up your fence, as it is right now. If the Ottawa tie ever slips, or if the fence proves defective, or not as represented in any way, ship it back to me and your money will be refunded. I am more than willing to take all of the risk, because I know that my fence has the sort of quality which justifies every claim I make regarding it.

164 Styles to select from

11c a Rod and Up!

In my big 40 page catalog, you will find illustrated and described 164 different styles of farm, poultry and lawn fence and gates—all styles, all sizes and a grade to meet every need. I claim that my line is the largest and most complete produced by any American manufacturer—and that I can give you greater value for your money than you can secure from anyone, anywhere. I will sell you any quantity you want, from ten rods to ten thousand or more, and every rod is backed with the same "satisfaction-or-money-back" guarantee.

Just to give you an idea as to the many real bargains which you will find in my big catalog, I list below six popular styles in fencing with my direct-to-you factory price per rod:

	Per Rod		Per Rod
18 in. hog fence	11c	60 in. poultry fence	25¾c
26 in. hog fence	14c	42 in. ex. heavy field fence	22c
48 in. poultry fence	22½c	50 in. heavy field fence	24¼c

These are unusual bargains as compared with the price your local dealer would ask you for the same quality fence—but these are not unusual bargains when compared with the other 158 items listed in my big catalog, because every item is a big value bargain which I do not believe you can duplicate anywhere in America.

"Perfect in Every Way"

Carroll, Wyo., Oct. 20, 1913.
The Ottawa Mfg. Co., Ottawa, Kansas.
Dear Sirs: I am well pleased with the woven wire I got of you last Spring, and don't believe there is another factory in the U.S. that puts out as good wire at the same price. The wire has proved to be perfect in every way.
Yours truly, C. W. FRIEDRICH.

"Saved Money"

Gilley, Texas, July 10, 1913.
The Ottawa Mfg. Co., Ottawa, Kansas.
Dear Sirs. The poultry and stock fence which I purchased of you a few months ago, has proved entirely satisfactory, and I do not hesitate to recommend it to anyone. It comes up to your claim for it in every way, and I saved a nice sum of money by ordering direct from your factory.
Yours truly, J. J. YOWELL.



Send Your Name for the Free Book Today!

If you are familiar with wire fence prices, you will recognize a genuine bargain in every one of the six items on which I have quoted above. If you are in the market for any quantity of wire fence or gates, you will find it well worth your while to consult my big illustrated price list before placing your order elsewhere.

I don't want the order if I can't convince you that I can give you greater quality and quantity than you can secure anywhere in America for the same amount of money. My big 40-page illustrated book contains full information regarding my plan of factory-to-farm selling, gives you inside secrets about the fence business which you ought to know, illustrates, fully describes and prices in plain figures every one of the 164 different styles of Ottawa fence and gates. The book is sent absolutely free and postpaid, and you place yourself under no obligation whatever by asking for it. It will be money in your pocket if you write for it today. We also manufacture a complete line of gasoline engines, force pumps, wind mills and other farm machinery and appliances. These goods are illustrated and attractively priced in the big 40-page catalog which I want to mail you free. Send your name on the coupon, letter paper, or postal card today. Address

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Ottawa Manufacturing Co.

413 King Street, OTTAWA, KANSAS.

George E. Long, General Manager OTTAWA MFG. CO.,
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Address .....

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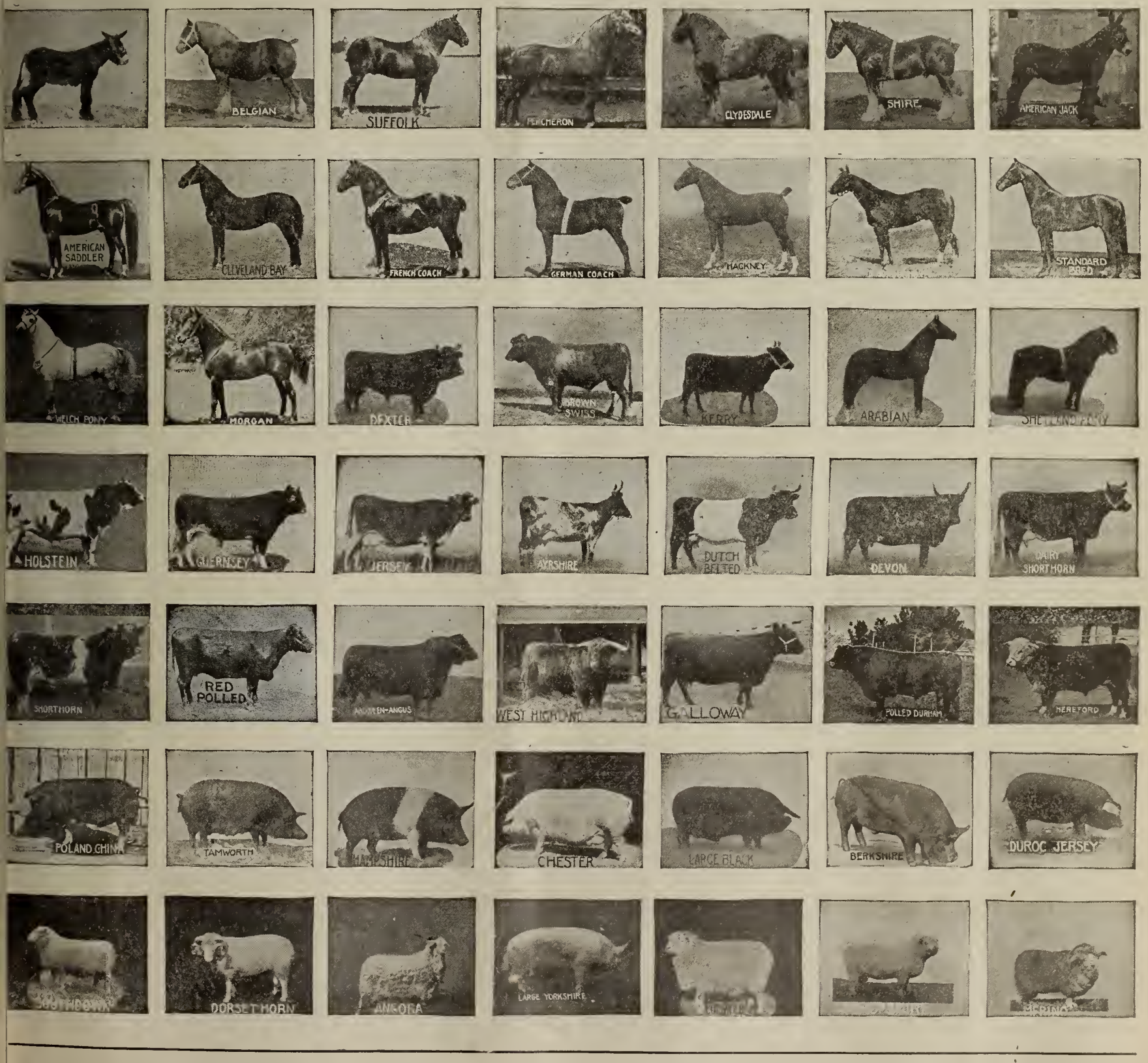
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10 MAR 1914

THE AMERICAN BREEDER

A Farmers' Paper, Devoted to the Breeding and Care of Their Live Stock, and the Welfare of Their Families and Homes.

Published Twice a Month. Subscription Price, $1.00 Per Year, or $2.00 for Three Years, Payable in Advance.

Volume VII. *Kansas City, Missouri, March 5, 1914* *Number 4*



Read The Special Subscription Offer On Back Page

BREEDING APPLIANCES OF ALL KINDS

The New NATURAL TEMPERATURE Semen Extractor

(Patent applied for.)

This is the latest improvement in capsule breeding. It has a soft metallic point which is absolutely necessary for getting the semen out of the uterus. It will stand bending 1,000 times without breaking. The natural body temperature can be maintained. More failures have been made from not keeping the right temperature than from all other causes, when healthy animals were used. After the semen is taken from the mare the long point is easily and quickly detached. The part containing the semen is then placed in the mare. This insures the proper temperature. This new instrument will be sold on a ten-day trial on all orders received before April 15. If the purchaser cannot get the semen out of the mare with this instrument during a ten-day trial, he may return it in good condition and get back the purchase price. It is very simple in its construction, and will stand continuous boiling. Nothing complicated; full directions accompanies each order. Remittance must accompany the order. Price, $6.00.

Improved Carlson Semen Extractor

This instrument has been used successfully by thousands of breeders. **Price $6.00.**

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We have the only capsules made especially for horse breeding. Some capsules do not dissolve, leaving a foreign substance in the uterus, which will prevent conception. Other capsules are too flimsy to use for this purpose. You cannot make any mistake by buying capsules from us as we only have one kind. We have them boxed with 100 in each box. The box is tight so they will be clean. These capsules are new, properly baked, and all bacteria killed before they are mailed. Always keep the lid on the box when not in use. **Price (per box of 100), $1.50.**

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A standard microscope. Can be used in testing the semen of stallions or jacks. Equipped with lense which magnifies 500 times. Boxed in fine case. Every breeder should have a microscope to test and prove the sureness of his sire. Any boy can learn to test the semen. Full directions accompany each order. **Price, each, $35.00.**

Curved Metal Impregnator

Nickel plated, 22 inches long, used for getting the semen out of the vagina only. **Price, $4.00.**

Thermometer

Tested and used for keeping water at the right temperature. **Price, $1.00.**

Speculum

Fourteen inches long. Very necessary in making examinations. Made of the best copper and specially polished so that the light is reflected into the mare. Any part of the vagina or cervix can be seen with this instrument. It is easily inserted. The best speculum on the market. Every stallion or jack owner should have this speculum. **Price, $3.00.**

Veterinary Thermometers

A standard clinical thermometer used by veterinarians. A metal case which insures it against breaking, with chain attached which may be pinned to the vest pocket and carried with safety. Extra length, tested and should last a lifetime. **Price, $1.25.**

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The bulb impregnator is equipped with a rubber hose just like the ordinary impregnator which has been sold for years. It is not guaranteed to stand boiling. **Price, $3.00.**

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Guaranteed to hold and fit any mare. Made of the strongest material. Every breeder should have a set of these hobbles. Some mares are dangerous to breed without them. **Price, $4.00.**

Breeders' Bags

Three sizes, small, medium and large. Stallions weighing 1,200 to 1,600 pounds usually require a medium size. These bags are guaranteed not to tear from any cause, before March 1, 1915. If they do tear before that time, return the top part with our stamp on it and 50 cents in cash and we will send you a new bag. **Price each, $1.50.**

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Send money orders or draft, as exchange is charged on personal checks. Always name Express Office as well as Post Office address, in order to insure prompt delivery.

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THE KANSAS CITY IMPREGNATOR COMPANY

TWELFTH and CENTRAL STS., KANSAS CITY, MISSOURI

THE AMERICAN BREEDER

WITH WHICH IS COMBINED THE STALLION AND JACK NEWS

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VOLUME 7 KANSAS CITY, MARCH 5, 1914. NUMBER 4.

THE CARE OF BROOD MARES

Attention Can Make Right Kind Most Profitable of Farm Animals —Often One Mare Requires Food for Three Bodies—Conditions Preventing Conception—Breeder and Mare Owner Interests Mutual.

A close observer can learn much by making a canvass among the owners of mares, as to the foal production in any community. One farmer may get all of his mares in foal and raise the colts successfully. His neighbor may have a band of mares equal in number and quality without a single foal resulting. Some men should work mules or geldings, or else make a study of this subject.

A good producing mare has great value. No other female on the farm can net as much revenue when properly handled. There is a difference in mares as well as in men. Just because an animal happens to be a female, it is not always evidence that she will be profitable from a producing standpoint. The average farmer who is not successful in foal production should consult the advice of a well-informed stallion owner who is capable of making a scientific investigation of mares. Those mares which are not producers or which are in a condition that injures them for such use should be disposed of on the city markets, and the farm be replenished with producing dams. The individual making the examination of these mares should be able to diagnose all of the conditions affecting production. This should include a rectal examination for diseased or abnormal ovaries and kidneys, as well as for the infectious disease in the vagina and uterus. Much good would result in a community if the prospective purchasers of mares would secure such advice before the mares were acquired. It does not take many shy breeding mares to consume the profits from those which are regular producers.

It is not advisable to condemn young mares with too much haste. Occasionally these young animals are difficult to fertilize, and in after years make regular producing matrons. The best breeding age is usualy from 7 to 10 years. After the 14th year has been reached the percentage of foals decreases rapidly. With age the teeth become impaired, resulting in poor mastication of food, causing digestive troubles. The animal is more clumsy and not able to perform the same amount of labor. The lung action may have been injured and the circulation retarded. Some females breed to a very ripe age with regularity, but, as a rule, advanced age does retard production.

Any age requires humane treatment, and mares in foal necessarily require an enormous amount of energy, especially one which is in active service in addition to carrying the foetus and nursing a foal. Much good feed is required, as two or three bodies must be nourished in addition to providing strength for labor performed.

The writer visited a farm some two year ago where eight fine mares were owned. Not a single colt had been raised for two years. These mares were worked at exceptionally hard labor from early in the morning until late at night. Expensive help was employed, and it was necessary to arrange for a continuous grind through the entire year without any intermission. In any and all weather and on all kinds of roads much heavy hauling was done. No thought was given to the general condition of these females. Every mare was required to do her part of the work each day. They were fed heavily, as a necessity, to keep them in working condition. They were all good ages, good conformation and serviceably sound.

The stallion owner complained; he had tested the semen of his stallion regularly and could find no abnormal conditions present in any of the mares. The writer found the difficulty to be too much continuous heavy labor without a chance to recuperate. These mares would be bred, pass two or three heat periods and come in again. This farmer was advised to buy one pair of good, big, substantial draft mules that could be put into the most hazardous work. He was advised to buy two more good, big, strong mares. He was further advised to watch these mares carefully and when one was a little out of condition to turn her out and put in another mare.

The hay was also investigated, and instead of giving all the hay they wanted he was advised that they be limited at the noon ration and allowed to have the greater portion of it in the evening, then giving only such amount as they would clean up over night. Oats was also substituted for a part of the grain ration. The hired men were instructed to let these mares go slow for a little while during the early morning work, giving them a chance to start into their labor moderately.

He was advised also to breed his mares at different times in the season, so as not to have too many mares with small colts at the same time. The two mares purchased were in foal and have proven themselves good dams. Out of the ten mares this year he has eight colts, all doing well.

It is wonderful what a little chance for recuperation will do for a producing female of any kind. Rest is an excellent remedy for all ailments caused by too strenuous a life. An animal can only be expected to perform a certain amount of service. When the energy is all used up, it requires more nutrition and expense than when there is a little left in reserve. A mare which is in good physical condition, with a little surplus energy, can perform extra service occasionally without injury, but if she is worked to the extreme, and then extra service is required, great damage is apt to follow. There is nearly as much injury done to those mares which are worked to the extreme (even though they be fed sufficiently) as to those which are kept on scant rations. There will be much complaint during this breeding season from a very large section of the country owing to the scarcity and high price of feed. Not only will these complaints come from those who have thin mares, but from those who have utilized kinds of roughness, which should never be fed to horses.

Every mare owner should be taught how to diagnose abortion. Many mares lose their colts and the owners never know it. The symptoms are usually a dull look out of the eyes, flanks tucked in and a little discharge (usually blood) will be found on the hairs of the tail. In order to detect this, these mares should be watched every day, as not many of them will miss a feed during these occurrences. Where mares are kept in a barn continuously the foetus may be found in the manure when the stable is cleaned; if it is discharged outside, it is not often found, owing to the close proximity of dogs and other animals.

Our barns and general farm conditions are much different from what they were a generation ago. Too many good buildings have little ventilation. Fresh air is an absolute necessity for all animals. This is more specially true on the farms of those who do not

PERCHERONS FOLLOW BELGIANS

IN THE AMERICAN BREEDER STALLION SHOW.

Entries and photographs for the Belgian Stallion Show, which closes March 28, are coming in rapidly. These will be published in the American Breeder of April 5. The Percheron Stallion Show will close soon after, and the photographs, with measurements, will be published.

Every Subscriber Owning a Good Belgian or Percheron Stallion Should Be Represented.

Read Full Directions Below and Help Create Interest in Better Horses by Using One or Both of the Entry Blanks.

Competition in this contest is limited to mature animals—that is, stallions four years old or over. Each one, as its photo and description are received, will be given an entry number, which will be published with the picture and measurements. No names will be given out until the awards are made. Then all of the entry numbers will be published, along with the names of the stallions, and owners who entered them. Each photograph should give a straight side view of the stallion's body, but may show his head turned slightly towards the camera if the owner desires. Only a few measurements are required. The blank below shows which ones. These measurements and a good, clear photograph will show pretty accurately, to an experienced man, what the stallion is as an individual. Measurements should be taken with a tape line drawn tight enough to press tight to the skin, but not enough to press into the flesh. We reserve the right to have a committee remeasure any animal and publish the result of its findings. Photographs can be any size, but those on which the stallion's body measures, in length, three to six inches are usually best. It is most important that they be clear and that the stallion stands straight and naturally when photographed.

Make all entries in one of the blanks below; clip it out and mail to the American Breeder.

Belgian Stallion Entry Blank—Entries Close March 28.

American Breeder Stallion Show—Kansas City, Mo.

Enter my stallion, as follows:

Stallion's Name.....Record No.....

Height (measuring from a point level with the top of the withers straight to the ground)..... inches. Heart Girth (around body just back of forelegs).....inches.

Bone (around foreleg, smallest place between knee and ankle).....

Owner's Name..... County.....

Postoffice ..... State.....

Percheon Stallion Entry Blank—Entries Close April 14

American Breeder Stallion Show—Kansas City, Mo.

Enter my stallion, as follows:

Stallion's Name.....Record No.....

Height (measuring from a point level with the top of the withers straight to the ground)..... inches. Heart Girth (around body just back of forelegs).....inches.

Bone (around foreleg, smallest place between knee and ankle).....

Owner's Name..... County.....

Postoffice ..... State.....

conformation of this draft gelding and clean their barns often. The fumes from the manure underfoot are very unhealthy. Mares taken out of a closely built barn take cold easily, and the mucous membranes are then more easily infected. There is little chance of fertilizing a mare with a serious catarrhal condition of the mucous membranes. These are among the first mares to be bred in the spring.

When the mucous membranes are inflamed and the eyes and nostrils watering, such mares should be put off until the weather is warmer and the barns are better ventilated. Some of them will not fertilize until they have passed the shedding process. Others will be bred to a better advantage after they have become accustomed to their regular work. There is no better conditioner than plenty of grass during the early pasture season. Unfortunately this is a busy time on the farm. A feed for all breeding animals should be slightly laxative. A good per cent of foals will not be found on any farm unless this condition in the feeding is in some way provided.

Any change in feed should be made very gradually. Anything that creates a disturbance in the digestive tract is detrimental to foal production. This is more especially noticed in mares that are subject to scours. One particular class of mares should be noticed closely—those having a very slim body, which does not afford sufficient space to carry much food. When fatigued a slight disarrangement on the digestive tract will bring bad results and frequently abortion. A well proportioned mare with a good constitution that can stand an abundance of work will give better results.

The best producing dams are of a feminine character. When the head of one is extended through a door one can easily tell that it is a mare. Those having a head coarse like a stallion are not usually regular producers.

And again, all other conditions favorable, the regular production of the best class of foals requires that the stallion owners and mare owners understand that their interests are mutual, and that they work in harmony and consult frequently.

WANTS MORE ABOUT "NATURAL CONDITIONS."

To the American Breeder: In an issue of recent date a subscriber gave a very good account of how and why stallions, where nature holds sway, are more sure because they seldom serve a mare before being 2 years old, but how do the fillies keep from getting in foal very young, and to their own injury? At what age do they breed under such conditions? Also, is it advisable to breed a good filly at 2 years; also, can someone give me information as to what per cent will get in foal with one or two services at 2 years, 3 years, 4 years, 5 years or 6 years At about what age will a mare cease to be fertile if not bred? —Chester A. King, Lyon County, Kans.

ADVERTISING THE "GOODS" BRINGS BUSINESS.

To the American Breeder:—Am having the greatest inquiry from my advertising of my fifth annual sale that I ever had and things look splendid for a good sale. The American Breeder is doing "Bully," and is second to none in the inquiry line. G. C. Roan, Macon County, Mo.

BIG WEIGHT FOR COMING TWO-YEAR-OLD.

To the American Breeder:—How is this for Clinton County, Iowa? One of my neighbors has a Percheron stud colt that weighs 1,850 and will not be two years old until July 1, 1914. Let us hear from some other Percheron breeders. F. A. Williams, Clinton County, Iowa.

Horse Conformation

LESSON I.

A serious hindrance to the improvement of horses is caused by a lack of knowledge of correct conformation. This applies to all breeds and types of horses. There are not many breeders standing stallions for public service who would be called "qualified" as judges.

There are many things to be taken into consideration in judging conformation. A horse might be compared with a chain. One weak link would greatly reduce the strength of what looked to be a very strong chain. It is these weak "links" that we hope to strengthen, and which we hope to teach our readers how to detect.

A few days ago the writer, in company with a large number of breeders, who have lots of money invested in fine stock, were judging draft geldings. These horses were led into the ring and a careful examination was made. One of the horses was of excellent build, the other was a counterfeit. He had practically no value from



FIGURE A, HORSE CONFORMATION LESSON I.

owner becomes dissatisfied, and then a serviceable standpoint, yet when those present were requested to pass judgment, one-fourth of the men in that body selected the counterfeit. These men were posing in their communities as improvers of live stock.

An individual who is not a constant student of this subject is very liable to cause costly experiences in his community. The market types of horses should be kept constantly in mind, because the financial end of business depends on meeting market requirements. It is our intention to devote much space to this important subject. We will print photographs showing the weaknesses, as well as the good qualities, of many horses. Last season more photographs of the best specimens of live stock were printed in this paper than in all other publications of this country combined. It is our intention to print more of them this year. Along with the large number of fine specimens we expect to print natural photographs of defective horses in such a manner that anyone should be able to learn these defects.

In order to find out the best method of procedure in this direction, we are printing on this page the photograph of a draft gelding weighing 1,700 pounds and 5 years of age. We are asking all our readers to study the to write us a description of his defects or weaknesses. This horse sold in the market as sound. He only brought two-thirds as much as another draft gelding of the same weight and age sold on the same day.

Is it worth while to learn how to judge horses when two animals of equal weight and age vary in value 33 1-3 per cent? We want every reader to feel perfectly free to express his opinion concerning this draft gelding. Take a good look at this photograph, and preserve this paper so you can note the criticisms offered by yourself and others. We want everyone to be interested in these lessons. Write on a sheet of paper first the market class to which this horse belongs and then follow (using a separate line or paragraph for each statement), with a list of the points in which this horse is faulty. Each fault should be qualified as "slight" or "serious," as your judgment dictates. Head this sheet with the line under the cut and mail this to the American Breeder within a week after you get your paper, so all these criticisms can go in the issue that follows. All of the photographs used in this series will have different designations.

TRAINING TROTTING HORSES.

It is not our intention to enter into the field of any turf publication, but there is one particular feature that many of our readers are interested in. Out of thousands of horses trained for racing purposes there must be some among that number which cannot be called "winners."

The large number of horses trained at a loss suggests to our minds that a general discussion as to which horses should be trained, and how, would be an important matter. A leading reinsman recently said that practically every horse within the last few years, which has been a winner, has shown some extraordinary speed during his early development.

There are a lot of race horse trainers stationed at different race tracks who are very glad to have a number of horses drawing a monthly salary, although most of them they have little hopes of ever developing beyond that monthly salary. Too many of these are trained and worked until the something happens to relieve the mind of the owner concerning further development. This is an easy field to work because the average man knows little about what speed to expect from a green horse. There are some among these trainers who could not expect to get results under their methods of doing business, even though they do occasionally develop an outstanding individual that happens to show something out of the ordinary.

More money is spent each year on training and developing race horses than is won. Every season there are phenomenal winners that are proclaimed the examples for others to follow. Among our readers are a large number of successful owners and breeders who have harness horses. We should like to have articles from these men giving their views as to the best method for the average breeder to use in handling a horse for best results.

Some contend that brush work is a detriment; others contend that this should be given to find out whether an animal can develop the clip. Others contend that horses trained with the brush preparation are not usually stayers—that they will go a short distance at a high rate of speed and then quit. Some contend that the speed should be developed on a smooth surface on a straight-of-way; others state that the education should be given on a half-mile circle track, and that the horse should be worked both ways around the curves to keep him going straight.

There is one thing quite evident, and that is that a young horse should be well broken before he is turned over to a trainer. He should be familiar with all sights, and his mouth should be kept in a good condition. His feet should be watched. His action should be trained true. No horse can be expected to go a fast mile that cannot develop a rapid clip for a short distance. The time on even a half-mile track is going to continue to be very rapid. A general discussion of this subject is invited.

THE BREEDING SCHOOL COMMENDED.

To the American Breeder: We got home from the January term of Horse Breeding School all O. K., and we believe that the knowledge obtained by us while there has, and will, awaken great interest among the farmers. I was quite pleased to hear of the February term being so successful. Long may the Breeding School continue to grow and be an inspiration morally and mentally. That influence goes back to the homes of those represented, and good results are sure to follow. You have my co-operation and prayers.—L. E. Martz, Mercer County, Ohio.

NEW YORK AND UTAH THINK ALIKE.

To the American Breeder. Please find herewith my remittance of $1.00 for three years' subscription. You say on your card of February 2, that you do not want to force the paper onto me. I wish to say right here I don't believe you have to force any man to renew his subscription, as I consider the American Breeder the best paper of its kind published, and would not be without it if it cost me $5.00 a year. Thanking you for your notice, I am yours truly.—C. H. Karlnoskie, Livingston County, New York.

To the American Breeder: I certainly do not want to miss an issue, and enclose check for three years' subscription. I have several times intended to write you, not only to offer suggestions on some points of interest, but to specially commend the excellent work you are doing. Am sorry we live too far away to avail ourselves of the benefit of the Breeding School. You may hear from me later.—James Devine, Salt Lake County, Utah.

The Diagnosing of Animal Diseases

(Lesson I.)

This preliminary article is intended merely lay the foundation for future ssons, and in our next issue we all take up a study of animal temrature, pulse and respiratory moveent, with a view of learing their reion to the subject of diagnosis.

The diagnosis of disease is based rgely on symptoms. A symptom ght be regarded as any abnormal or detectable abnormal condition the animal. It is not always easy one not acquainted with the habits animals to readily distinguish abrmal from normal acts.

For instance a horse might lie down d roll and everything be perfectly rmal and under other conditions e same animal might be suffering ere intestinal pain and the rolling uld be regarded as a symptom. ain an animal might be noticed to breathing rapidly, possibly three or ır times as fast as normal. No atıtion would be paid to it by one ıversant with animal nature, proled it was known that this animal d just been exercised rapidly or d been exposed to the influence of e hot sun. On the other hand such oid breathing is taken into account d seriously considered in such a ease as pneumonia or other eases characterized by fever.

In order to reach a conclusion relae to an ailment of some animal one ıst be able to draw the line between rmal acts and symptoms. Symptns refer to a disease and as a rule ch disease has numerous symptoms ich should all be discovered and om which we make our deductions d reach a conclusion as to the nare of an ailment. The fact that ch disease usually has many symptns and that these symptoms may common to several diseases, makes e matter of correct diagnosis still ore puzzling. For instance, returnto the animal that breathes much ore rapidly than normal. An animal ıy breathe rapidly from mere fever, m pain or from pressure on the gs or obstruction along the course the respiratory tract. The mere t that an animal breathes rapidly ls us very little in diagnosis unless consider this symptom in relation all the other symptoms. A person be a good diagnostician must be close student of animal life and a reful observer of every little symptn. Symptoms in animals is the lden language we are to interpret we are to know their ailments. Man able to describe his feelings and nt out his pains, thus greatly aidthe human practitioner in his rk. Our attention is occasionally led to a very limited number of nptoms that are within themselves ite diagnostic, so that the problem y be confined to deciding between ly a few diseases. Only occasionalit happens that a single symptom ables us to reach a certain consion.

A correct diagnosis is all important. It is the foundation for proper er care and intelligent medical atment. Diagnosis is unquestionly the weakest point in the work of ose who practice medicine. Propy it is not sufficient to merely learn at an animal has some lung disease, that the heart is wrong. If the gnosis is thorough, one should ow just how much of the lung is volved; whether one or both lungs, d the exact kind of the inflammaı affecting the organ. It is not our pe or expectation to carry our readers into the intricacies of such work t we merely mention it with the idea at they may be impressed with what included in an accurate diagnosis.

We trust that we may make these lessons of such interest that those who follow us will be able to recognize the meaning of the more apparent symptoms.

It is an important matter that stock owners should be sufficiently conversant with disease that they are able to distinguish between trivial things and those more serious. Every stock owner needs to be educated to that point, where, if the simpler household remedies fail to do good that he will early recognize the serious character of an ailment, that he may quickly enough avail himself of the services of men that have made the diseases of animals a special study. Too often the true character of a disease is not understood by the owner, harmful nostrums are administered and precious time lost. Later a well qualified veterinarian is called and finds a case beyond his help (either because of injurious medicines or delay in proper treatment) all due to a lack of understanding of the nature of the disease —an inability on the part of the owner to make a proper diagnosis.

It is always helpful when examining a sick animal to know something of the history of the case. In other words to learn of that train of circumstances that might have contributed as a cause of the disease. In one case one would be interested in learning if the animal had been given a sudden change in feed which might account for some form of colic; again, was the animal exposed to cold rains or draughts of air inviting pneumonia or pleurisy, or did the animal have an opportunity to contract an infectious disease by mingling with others showing like symptoms. When a true history can be obtained it helps very materially in clearing the way for an accurate diagnosis. In the matter of an owner dealing with his own stock the matter of a truthful history should not be difficult to secure. The veterinarian is the individual who may be misled if he is not a good judge of human nature, for too frequently an owner is inclined to color things with his own notions. It sometimes happens that he has indulged in harmful medication, and rather than admit his error he will try to shift the burden by misrepresentation.

HORSE BREEDING WITH CAPSULES

In reply to hundreds of inquiries concerning the latest and best methods, we are compelled to treat this subject more completely than can be done anywhere else. The great possibilities of artificial breeding have stimulated thousands of mens interest and action.

In the beginning we wish to request every one interested in horse breeding to carefully read the horse breeding lessons in this issue. This will give a working foundation for the study. Scientific breeding is nothing more than assisting nature. In every community a large number of mares may be found that cannot be fertilized by the natural service. They may be bred over and over again without any results, yet not be diseased. The cervix may be closed or out of line so that the semen, carrying spermatozoa absolutely cannot enter the uterus without some assistance. Nearly all such mares can be bred by inserting semen into the uterus, either with a capsule or an extractor.

A lot of stallions are ruined every year from too much service. Nearly all of the mares in one community can be bred to one sire with the capsule system and at that require the making of only one service a day. Many breeders have bred from ten to twenty mares at a single service. Any one of those services, if properly done, is just as good or better than the natural service, because when a capsule is inserted containing live semen, in a clean condition, and at the proper temperature, it is a complete service. Some stallions discharge only into the vagina. All such services are doubtful. Capsule breeding, when properly done, is about thirty per cent surer than the natural service with an average stallion and an average brand of mares.

The Kansas City Impregnator Company of this city, has put on the market a new instrument known as "The Natural Temperature Semen Extractor." They have been induced to sell it on a guarantee that the purchaser can get the semen out of a mare. On all orders received before April 15th, they propose to sell it on a ten days' trial. If the purchaser is not able to get the semen from the marc with that instrument he has the privilege of returning it and getting the full purchase price. It is made of material that will stand boiling. It is very simple in its construction. The long, soft metallic point can be taken off after the semen has been extracted. The part containing the semen is then placed in the vagina of a mare where the semen can be kept in a good condition and at the proper temperature for hours. When other mares are to be bred, the extractor is taken out of the mare and a capsule is filled which is inserted into the other mare to be bred. The one holding the extractor places it back into the mare so as to keep it warm.

A clean, healthy mare is to be selected upon which to make the natural service. The hands are washed thoroughly after inserting the capsule in each mare so as not to carry any infection to the next mare. It is more convenient to wash the operator's hands than the penis of the stallion or jack. In fact, it is impossible to thoroughly wash the penis of these animals, so as to prevent infection from being carried to the next mare.

Before the extractor is used it should be sucked full of boiling water so as to thoroughly clean it. An additional quantity of water should have been previously sterilized by boiling. This water should be at a temperature of 100 degrees when the service is made. The extractor should be sucked full of sterilized water at 100 degrees. A dipper of some thick metal should also be sterilized and be full of water at 100 degrees when the service is made so that in case the discharge is spilled the water which is contained in this vessel (in order to keep the vessel warm) is thrown out just before the stallion dismounts. If the discharge is withdrawn it is caught in this vessel. The semen should never come in contact with the direct rays of the sun.

This new extractor is a great improvement and any average breeder should be able to get the semen and also keep it at the right temperature. We will be glad to answer any questions on this subject.

The Impregnator.

The new Natural Temperature Semen Extractor can be used as an impregnator to a better advantage than any other instrument ever used for extracting purposes, that we know of. There are many breeders traveling over the country who are not prepared to use the capsules, who can use this instrument in transferring the semen from one mare to another when there is only one or two extra mares to be bred at one service.

It is not necessary to carry any other material except the extractor and a thermometor for this particular purpose. Boiling water can usually be had at any farm house. Suck the extractor full of boiling water, then allow it to cool down to 100 degrees. Have the extractor full of water at that temperature. When the service is made empty the extractor and get the semen which is to be transferred to the other mare bred. Care should be taken to select the healthiest mare for the natural service, so as not to carry any infection to the other mares.

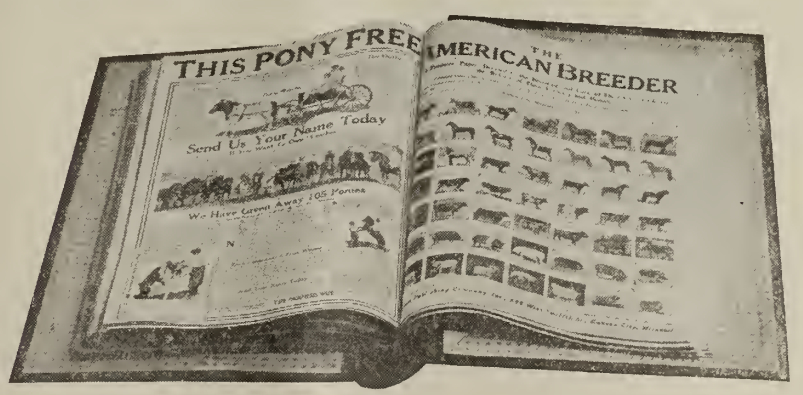
There are some who object to the capsules who will not object to an impregnator. Quite frequently the extractor can be used as an impregnator very profitably.

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THE AMERICAN BREEDER

With which is combined
THE STALLION AND JACK NEWS.

A Journal of Live Stock Improvement and Modern Breeding Practices.

FRANK B. GRAHAM and T. W. MORSE, Editors.

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MAKING STALLIONS PROFITABLE.

The financial end of maintaining the best stallions and jacks is the most important. There is an army of individuals who are ready to engage in that business when they know that it is profitable. Consideration of the financial end has created a demand for the latest modern breeding methods. For many years experiments have been carried on concerning artificial breeding. The editor of this paper has investigated every scientific method now employed along these lines. The subject of artificial breeding has been a live one. The leading horse breeders and veterinarians have been interested in this subject.

When ten mares can easily be bred at one service, how much can be paid for an outstanding sire? This question alone should make every man think. A neighborhood may not be taught to accept this policy the first year, but if the operator understands his business and has some personality, it can be done. Thousands of breeders are now successfully using the capsule system. There have been a few failures, as is the case in every line. Occasionally a man is anxious to proclaim the fact that he is a failure, which is not anything to be proud of. The majority of the questions coming to this paper asking for information on capsule breeding come from the competitors of the successful men, for such competitors are being forced also to adopt this system or retire.

Since the beginning of practical capsule breeding this paper has been the fountain head of such information. We expect to keep up with the times and have the latest and best information on this subject. Many experiments have been carried on by the editor along these lines. We have seen enough of the success in artificial breeding to know that it is bound to be a success when properly done. A few men have experimented; some have been careless; but those who carefully have followed our instructions have had good results. Since last season great progress has been made, and, as heretofore, we are prepared to keep up our good supply of new and useful information on this subject.

Proper regard for the financial end of the stallion business means a demand for more and better sires. During the last year hundreds of our readers have purchased stallions and jacks ranging in price from $1,500 up to $11,500 for a single sire. This has come from men who have proved beyond a question that a large number of mares can be bred from a single service. Scientific methods are now firmly established, and even those who were doubtful at the beginning must accept the modern plan.

COLLECTING SERVICE FEES.

In some communities there is little trouble about making collections, but in most communities there are a few men who do not intend to pay the service fees when the mares are bred, and in some communities too large a per cent of breeders seem to have this inclination. This is not justice to the stallion or jack owners, neither is it justice to the honest mare owners who wish to pay their obligations.

If only three-fourths of the mare owners pay their service fees, are they not the ones who are paying all the expense of keeping a stallion or jack for the others as well as for themselves? If the crooks were forced to pay their part would it not make the service fees a little cheaper to the honest mare owner who pays his bills? The collection of service fees has much to do with the quality of the stock in a community. In sections where the service fees are not paid, it will be impossible for the stallion owner to be able to buy a new stallion of the right kind. Make the business profitable and there will be an army of men ready to engage in it. Every honest man who expects to pay his service fees will assist in the collection of doubtful cases if properly appealed to. Make the point plain to him, that in order to have good stock someone must be able to buy it.

In 1912 we started a campaign for the adoption of laws in the different states giving the stallion owner a lien on the mare and colt for eighteen months after she was bred without the owner of the sire being required to file any papers. By keeping constantly at it and encouraging the breeders to get busy and work together, several state legislatures were influenced to pass satisfactory laws. The difficulty in the other states was that too many breeders waited for someone else to do the work. This year we want to start early, and are now asking that everyone interested in the improvement of horses and mules use their influence for satisfactory laws in this direction. We expect to see half of the states in the Union pass this law. It has been in effect in Arkansas for many years, and has stood the tests of the course so that no one need fear its being unconstitutional. The Arkansas law further provides that it is a misdemeanor to dispose of the mare until the service fees are paid.

Quite frequently a breeder states that he would rather make the service than to collect the service fees. Every man that is interested in more and better live stock must study these problems and use his efforts in the right direction. We want to see the breeders form county breeders' organizations in every county in the United States before the legislatures meet in the different states. This is to be a campaign for results. At the proper time we will furnish plenty of material with full instructions how to proceed. With the rural telephone and the opportunity for getting together, there will be no excuse for not making these laws satisfactory. Every other class of men on the face of the earth is working together. Why not the stallion and jack owners? When several breeders have an opportunity to get together, discuss this problem and have it a live subject in plenty of time. This is the year in which to get results without any red tape connected with it.

WRITING ARTICLES.

Practically every one of our readers has had some particular experience or has carried on some investigations, or is in possession of some special knowledge which would be valuable to other readers. We would like to ask each one to consider this a special invitation to contribute something to the American Breeder for the benefit of other readers.

If some article has appeared in this paper which should be more thoroughly discussed, give your views on the subject or ask some questions. "In union there is strength." The best way to finally decide a subject is through discussion. We want all our readers to feel perfectly free to send in contributions. We should prefer articles in length from 200 to 500 words. Some have an idea that an article must be of great length to the acceptable. We shall be pleased to receive a very large number of short articles, in a condensed form, on subjects of general interest to our readers.

TRUTHFUL HORSE BREEDING INFORMATION.

So many old fogy notions prevail that we earnestly request all our readers to carefully read and study the horse breeding lessons in this issue, and be prepared to read other lessons which are to follow. The average man will tire on these subjects, but these lessons should be preserved and carefully re-read occasionally. There is a demand for this information, and every stallion owner or veterinarian should be familiar with this subject.

A lot of alleged information has been printed which is contrary to the best interests of live stock production. It is up to those who are in position to meet large numbers of men to correct these misleading notions. These lessons are accepted by the best up-to-date authorities. They are prepared in a condensed but plain manner so that every breeder should be able to understand them. Unfortunately there are many men in the breeding business who never read or think, but who follow some of the curious notions. The progressive men will have the responsibility of correcting wrong conditions in animal production. Every breeder should take a pride in being able to answer intelligently questions bearing on this subject. These lessons in this issue are only a commencement. A series of other lessons is now being prepared. With the co-operation of all our readers this can be made the most profitable breeding season the business has ever known.

ASKING QUESTIONS.

Our readers know what they want printed in this paper better than anyone else. We want everyone to feel free to ask questions on subjects concerning live stock. Usually your question will interest many others.

We wish to express our gratification at the confidence our readers have had in our "Question and Answer" department. We have the distinction of answering more questions on live stock than all other publications combined. We are glad this co-operation exists. Nothing could be better evidence of this condition than the great number of questions. Occasionally we receive an inquiry that we are not able to answer immediately. Sometimes it takes weeks to get the desired answer. Some of these questions cost a considerable time and money, which we are glad to spend in this direction.

We should like to have everyone study these problems. No one knows how soon the same answer may apply to a problem coming up in his everyday life. All questions should be written on one side of a separate sheet of paper, as plainly as possible, giving as much information as the writer can supply. The information should all be concerning this particular case. If further information is wanted on a particular question that has been answered, please refer to the number of the question when writing. Reports on cases that have been discussed in this department often will prove interesting and helpful. In all such cases refer to the number under which the case was considered. We wish to encourage this department, and expect to give it increasing prominence in the paper.

TREATING BARREN MARES.

There are three standard treatments for diseased mares—iodine, saline and soda treatments. These treatments have been used successfully since they were introduced by this paper. Iodine is a new treatment for mares but has been used in human practice for many years with excellent results. In all of these treatments the fluid is injected directly into the uterus, which plan is new to many. We recently received a letter from a high authority advising us to be careful about the injections into the uterus of a mare, as all his text books advise against such practice as dangerous. Thousands of men are using these treatments in this manner, and we have never heard of any serious damage being done with these treatments when proper precautions were taken.

For several years we have advised that such treatments be given by qualified veterinarians, but stallion owners complain that they cannot get their mare owners to spend the money for such treatments, because it has never been deemed necessary heretofore. Little attention has ever been given to the treatment of mares to correct conditions interfering with reproduction. Some veterinarians refuse to treat these mares, stating that they do not see anything that needs treatment. If it is impossible to get professional men to treat these mares some one else must do it. A lot of mares need treatment before they are bred.

It is not advisable to begin treating these mares until warm weather. They should be put off. Some will need the iodine treatment. Follow it up with the saline treatment a few weeks later. Others require only the saline treatment. Acid mares may be made producers with only the soda treatment.

In the April 5th issue, which will be known as the "Barren Mare Issue," will be given all of these treatments, each one with careful instructions as to its use. This will all be given in detail so that any average man should be able to get good results. There are a lot of treatments employed both by veterinarians and breeders which are deterimental. Some of the treatments used may cure the mares but ruin them for reproduction.

We will not give these treatments until the April 5th issue, because we do not want them used too early. A lot of these diseased mares can be treated so that they may be bred toward the latter end of the breeding season with success. Do not get in a hurry and use something you may regret. There are treatments employed by both veterinarians and breeders, which are detrimental. Some of them apparently cure the mare, but in reality put an end to her ability to reproduce.

We want all our readers to watch for the barren mare issue and keep it on file. These treatments will be given only in that one issue. We will

idly answer questions in later is-
es, but we can supply but one
py of the barern mare issue to each
bscriber. We have had hundreds
d hundreds of requests for the last
rren mare issue, many of which
me after the supply was exhausted.
let us again repeat that we are
sirous of every reader filing that
rticular issue away for future ref-
ence.

THE BEST JACK.

A company of Italians recently
ought to this country an importa-
on of Italian jacks. They brought
em to Kansas City to sell. The
riter was asked to look at these
cks and arrange for advertising
em. The owners of this importation
ere informed that we did not want
eir advertising; those little scrawny
cks have no value.
The importers were greatly offend-
, but we knew that the sale of this
ock would be very slow, indeed, and
the end be unsatisfactory. There
e too many little jacks in the coun-
y. We do not want business upon
hich we have not a fair chance of
ving results; neither will we put in
r columns the advertising of a lot
worthless stuff. Our readers are
the market for the better ones, and
e are trying to make it possible for
em all to use the best.
There was a time when imported
cks were a necessity. But there are
w more good, substantial jacks in
e United States than can be found
the rest of the world. We have the
ed and the inclination to produce
od ones. The jack stock in this
untry would improve more rapidly
the breeders of jennets would be
ore careful about the selection of
od sires. It is a waste of time and
oney to mate a jennet with an in-
rior jack. There is no market for
e undersized ones.
One important feature that should
e scrutinized more carefully is the
evelopment of our jennets. The jack
lts will be fed and cared for in
der to get the best possible growth.
jennet colt is allowed to fare on
ant rations without much protection
winter. This is a wonderful mis-
ke. In order to increase the size
our jack stock it is first necessary
at we develop our females to full
aturity. A breeder cannot expect a
nnet to do her best unless she is
roperly developed. It is necessary
at these females be good milkers,
id in order to increase the size,
pace must be provided for carrying
od.
The demand has gradually changed
om the long-legged, spindling jack to
ne having plenty of body and bone.
reference is not given to extreme
eight. A demand for weight in jacks
increasing. It will only be a few
ears until jack breeders will be de-
anding jacks to be weighed. This
ill be a step in the right direction.
s the jack stock of this country
ets more bone and body, the size can
e increased more rapidly, and the
cks will produce the right kind with
ore regularity. Mules from this kind
stock will bring more money, and
ne mule market must be the guide.
Really good herd jacks can only be
nown only after their colts have
rown to maturity. A mistake too often
ade is to purchase a handsome young
ck for this important purpose. Jacks
o not always breed true when used
n a band of jennets. There can be
ound, of course, some jacks which
reed with uniformity their excellent
ualities. These are of the kind that
ught to be used on jennets. Too
nuch guess work has been done in
ck stock. Nearly any big, fine jack
ill produce a few good ones, but
hose that produce a uniformly good
t are not so plentiful.

To you is made the special sub-
scription offer on back page.

THE MOST VALUABLE CITIZEN.

What individual in your community actually creates the most wealth? Is it the banker, the merchant, the lawyer or the doctor? No other citizen in an average community creates more new value with the proportion to investment than the owner of a good stallion.

A good stallion or jack properly handled in a good community should produce at least fifty colts and many of them are producing more than 100; a few over 200. Seventy-five colts is not unusual, and at weaning time they should average more than $75 each. Some say that this wealth would be created anyway. There are plenty of male animals, such as they are, but is it not a fact that the colts from the outstanding sire are worth more than double those from a scrub? One-half of such an amount then is absolutely new wealth. There are plenty of communities where the colts at weaning time are worth $150 each. The difference in prices usually is credited to the better class of mares.

The owner of one of these good sires should not sit down and wait for the community to realize that a public-spirited citizen is in their midst. He should circularize that community, giving the residents in that district the facts concerning the value of the produce for the current year the sire in which he is interested. This breeder should continually work with his patrons for better results. They are looking to him for reliable information. No other individual in the community has a greater opportunity for usefulness than this particular breeder. Not only can he make his business very profitable, but he can make it a pleasure, so that in after years his friends and neighbors will say that he has been one of the greatest factors in the upbuilding of live stock. They will call attention to the many good horses that he has produced.

A reputation is not made in a day, but it can be lost in a very short time. With a large number of men visiting such an establishment the opportunity is presented for aiding in enlightenment on animal production. This breeder, without effort, makes new friends and acquaintances daily. He does not realize his power. He may not know how many young men may be following in his footsteps. If his habits are not of the best, a correction along these lines is in order. Gradually overcome such habits and practices as may lead the younger generation in the wrong direction.

We should like to see every breeding barn conducted in such a manner that the owners of mares will not hesitate to send their boys to such places. To do this is not only right, but is one of the best business getters that any breeder ever adopted. Profane or vulgar language is going out of date. If the breeder himself will start this movement, he will soon find that some of the loafers of that character will not be in his way nor interfere with his trade; they will seek other locations. We would like to ask every breeder interested in this profession to make it cleaner and to eliminate the name which has, in some cases, been applied to it. No more honorable profession can be found.

The breeding of live stock is one of the most necessary professions. There is a wonderful responsibility connected with those standing stallions and jacks for public service, not only toward the rising generation, but concerning the economic influence of the kind of stock used. Who can afford to encourage his neighbors to produce a class of stock at a loss? This class of men must learn the difference between service and revenue if they expect to build up their friendships and patronage. There is perhaps no other business that should be studied more closely from every angle than that of breeding live stock. Let us hope that each member of this profession when through with this earth will be remembered as one of the best citizens.

PROGRESSIVE VETERINARIANS.

During the last quarter of a century wonderful progress has been made in veterinary science. The microscope has been instrumental in bringing about most of these great changes. A leading veterinarian recently said that within the next few years the principal work in this line will be diagnosis and treatment with vaccines. The already large number of successful treatments administered by injection is increasing constantly. Perhaps no other profession has developed more rapidly. The opportunity in this direction is wonderful. Subjects upon which to experiment are not very expensive.

But with this great development comes another problem—that of getting customers to have confidence in such treatments and to call a qualified veterinarian at the proper time. This can be solved satisfactorily only by a better understanding among veterinarians, breeders and farmers. Live stock owners should appreciate the work and expense necessary to qualify as a veterinarian, and, on the other hand, veterinarians must be able to understand the difference between service and revenue. One unscrupulous veterinarian can do more damage to the profession than 100 men can ever repair. There are no two classes of men that should work together with more harmony than veterinarians and breeders. The better results a veterinarian can have, the larger his practice usually is; and the more education a breeder has, the quicker he will call a qualified man to perform such work.

A short time ago the writer, in company with seventy-five high-class breeders, visited a veterinary college. As they were being shown about the different parts of this great institution, they were ushered into the dissecting room, where a large number of young men were dressed in white coats. About twenty head of horses were hung up. These young men were dissecting the different parts. One of the breeders said that if these men had to spend from three to five years and a large amount of money to acquire this important education, they should be encouraged. Another one said that he was going to try to get for his work a young man just out of college, because he would have all of the latest information. It was interesting to hear those men give their ideas concerning this profession.

We were then ushered into a large laboratory, where the students were taught the use of the microscope; where the different germs of importance in this study were kept in an electric incubator. These young men were studying these dangerous germs. Another class was being drilled in the preparation of bacterins. And so on through the entire college with its many different departments of study.

A little farther we came to a large assembly room which was in charge of a Y. M. C. A. instructor, who receives an annual salary for looking after the young men. One of the professors of this institution stated that this was the best money the college spent. They had less difficulty with their students; more of them were proficient with their studies, and better reports had been made from those who graduated since this new plan was adopted.

The old idea that veterinarians are "tough" is going out of date just the same as is the case with all other reputable professions. The progressive veterinarian finds it necessary to keep up with his studies and to lead a clean life and give the best results, which, in the end, gives the foundation for all success in business and the professions, viz.: confidence.

GETTING THE SEMEN.

Practically all of the early text books on horse breeding have taught that the semen was always discharged in the vagina. In making breeding demonstrations with the capsule system in a dozen different states, using many different sires, the writer cannot remember the time when he obtained the semen from the vagina. There were times when a part of the fluid was in the vagina, but enough was found in the uterus to breed all the mares present.

In using the capsule system a choice of mares may be had upon which to make the natural service. The semen is usually in a better condition when taken from the uterus. A complaint made by breeders who used artificial means in years gone by, was that they could not get the semen. Some have tried to use instruments with a stiff barrel; others have used breeders bags; some cervical plugs; all of which proved failures in modern breeding practice. There are only two instruments on the market which can be successfully used for getting the semen out of the uterus. The Natural Temperature Semen Extractor and the Carlson Semen Extractor are each equipped with a soft metallic point which can be inserted into the uterus and bent down to make the suction. After the suction is made, the point is straightened and taken out. These points will stand bending a thousand times without breaking. About 60 per cent of the services made are injected into the uterus, and the use of instruments having a soft metallic point for taking the semen out of the uterus does away with any danger from interference with the stalilon or jack while making a service. There is no danger of spoiling the sire when this method is employed. Plenty of good sires have been ruined by using breeders' bags and cervical plugs.

BEST STALLION SERVICE RECORD BOOK.

A convenient record book for keeping the records of mares bred is a necessity. Every stallion and jack owner should have a book especially prepared for this purpose. After making a study of all of the different record books, and knowing fully the conditions to be provided for in this important matter, the editor of this paper has prepared what he believes is the best service record book published, regardless of cost.

It is printed on substantial paper with a waterproof cover, and of a nice size to carry in the pocket. The services on 200 mares can be recorded, each mare having a full page. When a mare is bred the record can be kept with a few crosses of the pencil, and a figure and a few names written; a lot of detail can be quickly recorded. There are twenty index pages so that all the mare owner's names can be listed alphabetically, and the pages on which their mares are recorded by listed with them. If the man's name is Jones, turn to the letter J, and see on what page in the book his mares are recorded. Each mare can be found quickly.

This is a much better book for convenience in every way than any book we have ever before printed, and we believe it is the best on the market, regardless of price. The contract at the bottom of each page is the strongest note that can be procured. In a case of this kind most any mare owner will sign a contract, many of whom would refuse to sign a note.

The price of this book is 50 cents, or six for $2.75, postage prepaid. The advertisement of this record book appears on the back page of this paper.

To you is made the special sub-
scription offer on back page.

Dourine, a Serious Disease

The disease known as dourine is of vital interest to the breeder for the reason that it is a disease of horses and asses that is transmitted from one animal to another almost exclusively through the act of coition. It is a disease to be dreaded because it is practically incurable.

Further, it is a disease that the average breeder would not detect unless in its advanced stage, which condition opens the way for extensive loss, should an infected stallion or mare be brought into a community.

Apparently dourine was originally a disease of the Old World and it reached our country through importations. Dourine was first recognized in this country in about 1885, being traced to an imported stallion. From time to time new infection centers have appeared, presumably arising from later importations.

Our government fully appreciates the loss that would accrue to our live stock interest were such a disease permitted to spread unchecked, and consequently has inaugurated stringent rules for its control and eradication. In this particular the regulation authorities have succeeded quite well, but at a big outlay in the way of money, not only to pay for stock destroyed but for the help of expert veterinarians and scientific pathologists to superintend and carry out the work of eradication.

The policy pursued by those in charge of the work has been one largely of exterminating the diseased animals; this being found the most effective and certain way of handling the situation. The insidious character of the disease permits of taking no chances, inasmuch as an infected animal may be the cause of a widespread malady in a few months. When we consider that mares are subject to shipment from place to place it is easy to understand how the disease may rapidly be disseminated.

The true cause of dourine was not discovered until 1896 and even at that time the discovery was not fully verified. This work occurred in Europe. The cause of the disease as it existed in America was not discovered until as late as June, 1911, which work was accomplished by the scientists at Washington.

The symptoms of dourine as stated might not be observed during the early stage of the disease. It is an affection that usually shows only local symptoms at first. These are later followed by the constitutional disturbances attending the disease. In from one to eight weeks after being infected from service a stallion will show some irritation and swelling of the penis which at first is restricted to the "glans." Later the entire organ is seen to be more or less involved, which reaches a degree that prevents the organ being retracted within its sheath. The parts in the region of the groin become involved and swelling reaches the superficial lymph glands located in that region. The swelling may continue forwards under the abdomen. Very soon small elevations will appear on the penis, a vesical is formed, which shortly presents the outlines of an ulcer.

These irregular raw ulcers may become so numerous as to cause a large sore surface due to their spreading until their margins run together. If the infection reaches the urethral canal there will be a thick catarrhal discharge from that opening. During this period the stallion is even more amorous than usual and will promptly attempt service if offered opportunity. Coition is frequently interferred with however through failure to maintain a proper erection or from mechanical interference due to swelling of the penis. As a rule, during the course of the disease thickenings occur in the skin called "plagues" that may be as large as a half dollar or even larger. These come up on various parts of the body and are inclined to disappear after a time. These thickenings appear to be points in which the organism responsible for the disease abounds, for the scientist in his search withdraws fluid from these places which is frequently found to contain the protozoon.

Again there is quite a tendency for the hair and skin to become white in dark skinned animals through loss of the coloring matter of these parts. This process of dipigmentation is usually restricted to the genitals, the inner surface of the thighs and the parts extending upwards in the direction of the anus.

The constitutional symptoms in fatal cases develop later and notwithstanding the animal maintains a good appetite it loses flesh. In the course of time it becomes very much emaciated. Symptoms of nerve involvement appear and are manifested by an uncertainty of gait behind. The animal wobbles or staggers when it walks and there is a failure to bring the hind limbs forward to their normal position, giving rise to dragging the toe, wearing it away, knuckling, and so on. As the paralysis becomes worse the animal finally reaches a state where it is unable to get up when down, and if not cared for would terminate its life by starvation and exhaustion.

The symptoms in mares are in a general way the same as in stallions. After infection the vulva swells and everts sufficiently to expose the clitoris, which latter is maintained in a constant state of erection. Ulcers appear on the mucous membrane of the vulva and vagina as well as on the external lips of the former. These become deep, angry appearing erosions. A catarrhal discharge takes place which glues the hairs of the tail together. The mare shows irritation of the parts in the way of estrum and frequent urination. Dipigmentation of the coloring matter occurs as in the stallion, followed by plagues on the skin, emaciation, loss of control and death.

Dourine inclines to assume a chronic form and an animal may live from eight months to two years or even longer when affected. The virulence of the affection is governed much by the care bestowed upon the animal. Where good care has been given, animals have apparently recovered, but it must not be forgotten that even in these latent cases there is danger of the disease being transmitted by either mare or stallion through copulation. Medicinal agents are of no value in treating this disorder only so far as they promote thrift of the animal, so that treatment should not be thought of. The point of interest to the breeder is to be on the alert to detect this and all other harmful diseases and thus preserve a sound stallion. With our present knowledge of the diseases that are capable of being conveyed through copulation we believe our breeders will redouble their vigilence, and permit their stallions to serve sound mares only, and that all uncertain, suspicious individuals they will breed only with capsules.

The American Breeder invites inquiries concerning this disease from all those interested, in the event there are points concerning it that are not perfectly plain.

ALFALFA
AS A MONEY MAKER

Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Building, Kansas City, Mo.

FILLING THE SMOKEHOUSE.

To the American Breeder: Meat that is to be smoked should be removed from the brine a day before being put into the smokehouse. If it has been cured in a strong brine, it will be best to soak the pieces in cold water over night, to prevent a crust of salt from forming on the outside when it is drained. The pieces should then be hung up to drain; then hung in the smokehouse. All meat should be suspended below the ventilators, and should hang so that no two pieces come in contact, as this would prevent uniform smoking.—Andrew Boss, Agriculturist, University Farm, Minnesota.




I want to tell you something New about Northwest Texas

You, who are looking for every chance to better yourself — to find ways and means of getting more real money for your labor and capital invested — should cast aside past ideas of the great Texas plains and investigate the late development there.

Within the last two years water for irrigation has been found within pumping distance of the surface, over an area of more than a million acres. The fertility of this deep soil is proven by the tremendous crops that result when it is irrigated. Alfalfa, kafir (pictured above) and wheat (shown below) yield wonderfully.

Beef-cattle and hogs put on meat rapidly. The climate and the abundant feed raised on low-priced land bring them into market condition at less cost than possible farther north.

Buyers are close at hand. Fort Worth pays practically Kansas City prices all the time.

You should know all about this section as it is to-day. I want to send you our folder describing the Shallow Water Country. In that booklet you will find all that I would like to tell you here. You will find it interesting and profitable. I will send you a pamphlet, also, of letters from farmers on the ground — men who have made good. I will tell you, too, of the Santa Fe Agricultural Department and the help it gives, without cost.

Just write a postal, "Send Shallow Water Country," and get acquainted with a good business proposition.

C. L. Seagraves, General Colonization Agent,
Atchison, Topeka & Santa Fe Railway,
2511 Railway Exchange, Chicago.



Stock Farm for Sale; one of the best in Washington county, Kansas; 314 acres; half grass; 30 acres alfalfa; balance farm land nearly all tillable; all fenced and cross fenced; never failing supply of both well and spring water; good six-room house; barn 60x62 and basement; located one and one-half miles from Greenleaf, Missouri Pacific division point. Also three standard bred registered stallions for sale; extra choice. Address, **J. R. Pruden, Washington, Kan.,** Owner.

BREEDING STOCK and STOCK FARM

For Sale—560-acre stock farm, the best in the county. Also 3 jacks, 1 saddle stallion, 1 Coach stallion and 2 Belgian stallions. This place and stock is for sale and will be priced right for quick sale.

ED. JOY, GOLDEN CITY, MO.

320 ACRE FARM

For sale or trade. Will trade for good young jacks; some registered Percheron stallions and mares. Located five miles from good town; two railroads; mail route and phone line. For further information, address, **A. Altman, Almena, Kansas.**

WANTED IMPROVED FARMS AND WILD LANDS.—Best system for quick results. Full particulars and magazine free. Don't pay big commissions.
WESTERN SALES AGENCY,
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Price, $3.00



JUST the thing you need on the farm to take pictures of stock, crops, etc.—you can use it to advantage in *your* business. It is very simple to operate and works like it's big brother the Kodak. The film cartridge of six or twelve exposures can be put in or taken out by daylight, and you can do the developing and printing yourself without a dark-room, or send it to your dealer. Takes pictures 2½ x 4¼ and you can make as many prints as you want.

Ask your dealer for catalogue or write us and we will mail it free.

EASTMAN KODAK COMPANY,
448 State St., Rochester, N. Y.

ETTER PRIZES FOR WINNERS IN AGRICULTURAL CONTESTS.

The Department of Agriculture at ashington, D. C., recommends that in ace of a trip to Washington, the ung prize winners of the corn, can- g and poultry, and other agri- tural clubs be given a year's course practical training at some agri- tural college. In case the young ampion's academic training would enable him to enter the agri- tural college of his state, a more mentary course in a school where riculture is taught or a course in an ricultural high school are recom- nded.

The department considers that such urses have considerably more last- value for prize winners and for the riculture of their section than fly- trips to the Capital. The state and al organizations, which have been ying for these trips, have been sin- ely interested in developing a true preciation of farming as a business ong the boy and girl farmers. Some these have already considered this estion, and have decided on the agri- tural course as the more desirable ze.

One of the first persons to raise the estion as to whether the practical ining or the more spectacular trip s preferable, was Willie P. Brown, Arkansas Corn Club prize winner. en his choice of all the prizes of- ed by the state, including the trip Washington, he selected a scholar- p giving him a year's tuition in an ricultural school. This gave im- us to the idea in Arkansas, and w the biggest annual prize offered corn club boys is a scholarship en by the Bankers' Association. e same association gives a similar olarship to the girl champion of canning clubs.

From Memphis, Tenn., comes an in- esting story which is a sample of at has been done in other states young prize winners. In the three tes (Arkansas, Tennessee and Mis- sippi), which are annually repre- nted at the Memphis Tri-State Fair, was decided to send certain boy prize winners to the fair as a reward for their excellence.

A trip to a fair is a more or less spectacular event, as is the Washington trip, but it gives the young farmers certain concrete agricultural experience which they do not receive from excursions to the sights of Washington. At the fair in question the young men were housed on the fair grounds in tents, two to four in each tent, all in charge of men employed by the state and government to look after their interests.

The young men had a regular program which kept them busy most of the week of their stay. One day an expert took the young men to view the improved farm implements on display. The boys were shown the machinery, and its uses were explained. Another day a seed expert showed the boys the exhibits of seeds, and gave them practical advice on seed selection. The boys were taken in the same manner to view the beef cattle and other live stock. They were taught to pass judgment on the good qualities of the animals. They were schooled in the method of judging the best pigs. Informal lectures were given at the camp on these various subjects. The young men took back much valuable knowledge with them, besides having a good time.

At the Missouri State Fair last fall there was a camp of boys from the common schools of the state sent there because of similar good work done at school and at home. The boys in this camp were handled very much as the boys at Memphis.

LATEST ON FORAGE POISONING.

The disease which visited Kansas and Nebraska in 1912, and which was thought to have been a new disease, has turned out to be practically the same ailment that has harassed horsemen for a hundred years. It has appeared in nearly half the states in the Union, and possibly more. It is sometimes called "Blind Staggers" but a more modern name is "Forage Poisoning."

It seems that certain conditions of the weather produces a fungus that is very destructive. A certain section may be visited by this disease; it may be a very small area or very large. Many big names have been applied to this disease. Thousands of remedies have been proposed, nearly all of which have been absolute failures. One important incidental discovery in connection with recent visitations of this disease, is that there is a very large number of unscrupulous men who are anxious to take advantage of those in distress. So far as medication is concerned it has proven of little value in a majority of cases.

There are certain precautions, however, which can be taken, and some treatments that have shown benefits. These are covered in a new bulletin which the Bureau of Animal Industry at Washington has put out—Bulletin No. 65 on Cerebrospinal Meningitis (Forage Poisoning) from which we quote the following:

"Many horses have died from blind staggers caused by eating moldy baled hay. As soon as the hay was eliminated the disease ceased. Other horses in the vicinity not fed upon this hay failed to contract this disease. Later some of the moldy bales were opened and exposed to the sun for three or four weeks. After this the hay was fed to horses without producing any ill effect. Forage poisoning, therefore, seems not to be an infection, but rather what is called 'auto-intoxication'—that is, it is due to certain chemical poisons or toxins formed by the activity of internal organisms. These poisons may be present when the forage is taken into the body or may be formed in the stomach. The nature of this poison is still unknown.

"When the horse is taken with the blind staggers it usually exhibits a disturbance of the appetite, depression and weakness, while there is trouble in swallowing, drooping of the head and sleepiness which may give way to excitement and attacks of dizziness. The vision is impaired, which results in the staggering gait that gives the disease its popular name. Certain muscles of the neck and flanks are cramped and there is a grinding of the teeth. Sometimes the animal has pains as though it were afflicted with colic. The animal will walk strangely if in an open space and will try to push through any obstacle it encounters. In the stable he will press his head against the stall or rest it on the manger. Sometimes he will crowd into a corner. The temperature at the beginning of the disease ranges from 103 to 107 degrees F., but within 24 hours the temperature falls and eventually becomes subnormal. The animal is often down on the second or third day and may not get up when urged. Death usually occurs in from four to eight days, although death may follow within ten hours of the first symptoms, while chronic cases have been known to last for three weeks. About 90 per cent of the affected animals die.

"While medical treatment in the vast majority of cases has not brought results, nevertheless if it is used at all it must be prompt and before the disease has had time to run. The digestive tract should be cleaned out thoroughly at once.

"After the animal has been purged, the treatment varies according to the symptoms. The following measures have been recommended:

"The first and most important: Feed only clean, well-cured forage and grain, and pure water.

"Calomel, salol and salicylic acid, to disinfect intestines.

"Mild antiseptic mouth-washes are advisable.

"Copious cold water injections, if the temperature is high, give better results than antipyretics.

"An ice pack applied to the head is beneficial in the case of marked nervous disorder.

"One-ounce doses of chloral hydrate per rectum should be given if the patient is violent or muscular spasms are severe.

"If the temperature becomes subnormal, the animal should be warmly blanketed.

"If much weakness is shown this should be combated with stimulants, such as strychnine, camphor, alcohol, atropin, or aromatic spirits of ammonia.

"During convalescense the usual tonic treatment is recommended.

"The bulletin may be had on application to the Department of Agriculture, Washington, D. C."

We earnestly advised our readers to move their more valuable stock as soon as an outbreak appears to some other section where the horses were not dying. Those who have followed our advice have lost a very small per cent of horses. A man who has stock worth from $500 to $5,000 can afford to load them on a train and ship them to a healthy section before they get infected. This disease has not been generally quarantined because it is not thought that it is transmitted from one animal to another. It subsides after frost.

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Run faster. Work or play better.

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The pure mint leaf juice soothes your throat and moistens your mouth, improving your ***wind.*** It helps keep your mouth closed. It keeps teeth healthy and bright.



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Live Stock Market Review

Another two weeks of active demand for horses and mules leaves the market in a healthy condition. Prices for horses fluctuated $5 to $10 a head, the upmovement being caused by a rather sudden let up in receipts due to storm conditions. A return to normal supplies caused a return to lower quotations. However the eveness in prices has been rather remarkable, considering adverse conditions in other market lines. The source of demand is from farms, the cotton belt and the east. The west and northwest is still too winterish to think of buying for spring work.

Good horses and mules in good flesh have been the kind in broadest demand. The man who uses horse power is finding relatively the best values in the higher classes, and the one who produces has found that it costs no more to raise a poor horse than a good one. There are plenty of horses and mules that can be bought under $100 but there is little competition for that class. From $150 up lies the real market preference, but certain quality is demanded.

Dealers in horses and mules say that conditions are favorable for the continuance of a good demand. Their ideas are based on the fact that the east has been a large buyer, that the south is still in need of both horses and mules, though they have bought freely for two months, and that farm demand is just beginning. The south is unusually prosperous. A large cotton crop that realized high prices, and more active intensive cropping methods will extend their weather materially. The mule is the essential of all increased farming operations. Construction work has been tied up temporarily by adverse weather conditions but with the advent of spring there will be renewed activity along that line. In the northwest horses are still on the open range but they have fared remarkably well this winter, the last two weeks being the hardest of the season. It is the policy of the entire northwest to keep on breeding up their horses and from changes that have been produced in the past five years, the Dakotas, Montana, Wyoming and Utah will have horses of high value in the next few years. Their state of farm and ranch development however is such that they will have an increased home demand.

As viewed from the market angle, the two greatest factors are the stability in prices, and the constantly increasing demand for higher quality A breeder takes no chances under such conditions. Horses are as important a side line on the farm as any thing, and handled correctly make a sure profit.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Drafters, 1700-pound up	$220@285
Drafters, fair to good	150@215
Chunks, good	160@185
Chunks, fair	100@160
Southerners, good to choice	130@150
Southerners	85@130
Driving horses	65 up
Mules—	
13½ to 14½ hands	$100@140
14½ to 15½ hands	135@170
15½ to 16 hands	165@215
16½ or better	200@285

New February Cattle Records.

The last two weeks this month developed the highest prices ever paid in the second month of the year, and quality considered a full 50 cent advance compared with January. In Chicago, prime 1,600-pound steers sold as high as $9.75, and in Kansas City the top price was $9.20. They weighed 1,530 pounds and came from Kansas, but were lacking in prime finish. In Chicago, there was a big showing above $9, but other markets were supplied with only the short-fed classes, so that their showing was below $9. To glance over current receipts and compare them with former years at this season it takes no prophet to conjecture that the supply of grain fat beeves is far below normal, and will continue so for some time to come.

Grain fat steers were not the only classes that made new high records. Some 1,226-pound Panhandle steers, fed on cotton seed meal, and a grain finish brought $8.80, and Colorado sugar beet pulp steers, and Idaho hay fed steers brought $8.00 to $8.50. Such high prices were never paid before at this season of the year. In 1908, when plenty of fat steers were available the steer trade was on a $5.50 to $6.25 basis, and western steers $5.00 and lower. Quality now is not as good as then and the future supply promises further contraction. Chicago has received more cattle this past month than in February last year, but at river points there has been a moderate decrease. River markets have profited materially by feeding operations in Texas. The bulk of the western steers are selling at $7.35 to $8.40, and are about the same class that two weeks ago brought $7.00 to $8.15. Supplies from below the quarantine line have been nearer normal in all particulars than the run from above the line.

Lent started Wednesday, but to all appearances has not reduced demand to any appreciable extent. Killers had discounted its effect by small purchases in the preceeding week. The season in which some religious sect abstain from meat extends over a period of forty days, and may be an influence in reducing demand for cattle later. March is never a month of large demand but estimated receipts this year are such that buyers will have little chance to show much discrimination.

Heavy steers are selling at a big premium over the lighter weight cattle. In December and early January they were a drug on the market. April and May are months in which tidy weight mixed cattle and heifers are ruling favorites but this year the stuff has not been put on feed for spring delivery.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.00@9.40
Good to choice steers	8.35@8.95
Fair to good steers	7.85@8.30
Common to fair steers	6.75@7.80
Meal fed, choice	8.15@8.80
Meal fed, common to fair	7.00@8.10

Cows up to $7.75: Heifers $9.15.

Trade in all the stuff has been active. Prices rose 25 to 35 cents in the past ten days on all except "canners" and they were up 15 to 25 cents. The highest price paid for cows was $7.75, and heifers, $9.15. Other high prices were bulls at $7.75, and calves, $11.00. All high records for the second month of the year. The supply of butcher cattle is being maintained largely from dairy districts and wheat fields. Big bunches of fed heifers that are usually available at this season of the year are lacking. The imports of Old Mexico cattle which have been large the past 30 days have tended to keep demand for native butcher cattle within bounds. Some of these foreign cattle have come from Southern Mexico by the steamship route, and at Galveston, Texas. Stock yards are building to accommodate that business.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$7.25@7.75
Good to choice	6.50@7.20
Fair to good	5.85@6.95
Common to good	5.25@5.80
Canners	4.50@5.25
Heifers—	
Choice	$8.50@9.25
Good to choice	7.85@8.40
Plain to fair	6.50@7.80
Common	5.75@6.45
Veal calves	6.50@11.00
Bulls	5.00@7.75

Stocker Movement Beginning.

In the past two weeks contracts for cattle for spring delivery were made in Texas. It is estimated that all told that state will furnish about 350,000 for the annual spring movement. Aged cattle have been contracted at $60.00 to $75.00 a head and yearling up at $25.00 to $60.00 a head. Demand is urgent and will be more so as the April delivery season draws near. Such stock and feeding cattle as were offered at markets were taken readily at firm prices. Demand is expected to be urgent this month.

The following quotations are for stock and feeding cattle.

Selected feeders	$ 7.85@8.35
Good to choice feeders	7.35@7.80
Plain to fair feeders	6.85@7.30
Selected stockers	7.75@8.25
Good to choice stockers	7.30@7.75
Plain to fair stockers	6.50@7.25
Stock calves	6.50@8.50
Stock cows	4.75@6.50
Stock heifers	5.00@6.75
Milch cows	60.00@110.00

Hog Market Closes Month Firm.

The hog market closed February in practically the highest position of the year and about 35 cents higher than at the close in January. Last month's prices were the second highest on record for February, but March is off to a good start and promises to go well above the $9.00 level. In St. Louis last week the top price was $8.95, in Chicago, $8.85 and Kansas City, $8.75. The storm early last week which laid shippers out of the market prevented the $9.00 mark being reached. Receipts have been fairly large, and quality better than in January. March has the precedent of being the high month in the season of 1910, and this year is expected to develop a good high level. Kansas and Iowa are the two states that have been contributing freely that will show a material decrease in the movement in the next thirty days. Nebraska will have a fairly large number to market up to the beginning of May.

Heavy hogs are commanding the market premium, and owing to the scarcity of corn will continue to do so longer than usual. However, all classes have been marketed closely, and pigs and light weight grades will be scarce in early summer. March

REAL ESTATE TO BE SOLD AT AUCTION

Twenty miles south of Kansas City, at Stilwell, Kansas, in a beautiful fertile country,

ON TUESDAY, MARCH 17, 1913

This is an ideal breeding plant at the present time, and has proved a paying investment.

It consists of three acres of ground; a five-room house with bath room, pantry and two good porches, one a concrete; a basement 12x14. Has a south front with beautiful shade trees. Fruit consists of apples, peaches, plums and cherries; all are bearing except the cherries. Chicken house 10x12; a new barn 28x34; plenty of hay now; two good cypress lots joined to the barn, each 28x32; barn has south front. Place is fenced and cross-fenced hog and chicken tight; has a well of everlasting water and first class hedge posts in the fence. The improving has been done in the last four years. Out at the edge of town; taxes cheap; graded and high school advantages, a quarter of a mile from the house; a half mile to three churches. Telephone service and free delivery mail.

This would make an ideal chicken ranch; chicken fanciers will make no mistake in buying it for that.

This property is well worth $2,500; buy it at your own price; easy terms.

I have a pure bred Shire stallion six years old; weighs 1,850 pounds; sound. Also a black jack, white points; 8 years old; 15.2 standard. Extra good individual and a quick performer. They are guaranteed breeders.

My reason for selling: I have secured a big auction business at Pleasanton, Kans., and must take possession at once.

I will guarantee the foregoing statements to be true. Detailed information free.

H. M. JUSTICE, Stilwell, Kansas

Col. W. B. Carpenter, Auctioneer, 1400 Grand Ave., Kansas City, Mo.

A BIG RICH FARM AT A BARGAIN PRICE

480 acres in Shelby County, Mo., on main line of Burlington Railroad, 42 miles west of Quincy, Ill.

While this farm is nearly all good tillable land, the greater part has been in grass for years, and lots of stock has been kept on it.

On it are 3 dwellings, as follows: One 8-room brick residence, closets, pantry, bath, hot and cold water, sewer, septic tank, cellar under entire house. Large poultry house, ice house, wood and buggy sheds, bee house, etc. One 8-room frame house, convenient and comfortable, cellar, pantry, large poultry house, well and cistern. Also 3-room tenant house. All improvements kept in good repair.

Large barns for horses, cattle, hay and other feed; also first class hog house and roomy sheep shed.

This farm has an unlimited water supply. There are three cisterns and six living wells. Two of these wells are deep drilled and are equipped with windmills. There is a concrete storage tank built in the ground at the cattle barn, 36x13 feet, and 7 feet deep. From this, water is piped to pasture.

There are two bearing apple orchards on the place (about 400 trees), and a fine line of other fruit.

Price, for quick sale, $110 per acre; time on part of purchase price. I am not an agent, but am interested in the estate and have made my statements conservative and from a full knowledge of the facts. Mention the American Breeder when you write me.

ROBERT McILVOY **SHELBINA MO.**

Now is the time

to make a trip to Texas and see just where *your* opportunity lies.

The price of good, rich land in Texas is so low that you can own a big farm there without investing much money or mortgaging the place. The land will raise as big or bigger crops than you are now raising, and you will get better prices for what you raise.

Ask your local agent to sell you a ticket via the Katy—or tell me where you want to go and I'll plan your trip, and give you full information about the *low homeseeker's excursion fares* on the first and third Tuesdays of each month.

I will also send you our free books on Texas opportunities if you want them. Write today.

W. S. St. George, Gen'l Pass. Ag't. M., K. & T. Ry. St. Louis, Mo.

Prairie Farm Hackneys

FOR SALE—One aged English Hackney stallion, Cedar Matchless 7401 (E. H. S. B.), 1345 (A. H. S. B.) Bay. A grand breeder. One fine bay stud colt, foaled June 1910, a high-class colt, home bred, sire and dam both imported; dam a sweepstakes winner at the big shows. One chestnut stud colt, foaled May, 1912. A crackerjack. Would exchange aged horse for a good imported Hackney stud.

Also have a few cracking good fall Duroc Jersey boar pigs for sale, show prospects and herd headers.

E. M. CASTLE & SON, Route 3, Joy, Ill.

Farm To Exchange

320 acres fine, smooth, clover, alfalfa farm; fine improvements; 80 miles of Kansas City; owner wants North Missouri land; 505 acres four miles from Schell City, Mo.; fine improvements; all smooth; 140 acres in wheat goes with deal. Want stock farm.

T. M. TRIPLETT, Garnett, Kansas.

TO TRADE

Good, level, well located farm, all under cultivation, for Percheron stallions, mares or good jacks.

Lane Realty Co., Dighton, Kans.

200 ACRES OF VIRGIN TIMBER

For sale; mostly white oak; near Rolla, Mo. Would take registered German Coach mares or a large jack in trade.

A. A. THOMPSON, Roodhouse, Ill.

To you is made the special subscription offer on back page.

eather conditions will have a ma-
rial effect on the spring pig crop.
The following table shows prices
r hogs in Kansas City in the past
o weeks:

		Preceding Week
onday. . .	$8.40@8.75	$8.30@8.65
uesday. . .	8.35@8.65	8.30@8.65
ednesday. .	8.30@8.67½	8.35@8.70
hursday. . .	8.40@8.72½	8.40@8.70
riday. . . .	8.45@8.75	8.35@8.67½
aturday. . .		8.40@8.57½

The following quotations are for
gs.

hoice, 250@300 lbs.	$8.65@8.75
hoice, 200@245 lbs.	8.60@8.75
edium weight	8.45@8.72½
ght weight	8.25@8.65
ommon to fair.	6.75@8.20
ags.	6.00@8.65
ars.	4.50@7.00
ilk of sales.	8.50@8.70

The Sheep Market Improved.

A better tone prevailed in the sheep
arket in the past two weeks, and
ices rose 25 to 40 cents over the
w levels that prevailed during the
w time this season, the second week
February. The movement has been
ss liberal, and fed stuff is showing
gns of being on the close out. Lambs
st week sold up to $8.00; yearlings,
$7.00; ewes, $5.75 and wethers,
.00. At these prices feeders have
t made any money, and at the low
vels two weeks ago they were los-
g money. Sheep are now being as-
mbled at the big feed lots near mar-
t centers waiting for milder weather,
be sheared, and then sold. Prices
r wool have advanced materially in
e past 30 days, and buyers now are
the west trying to get the spring
p under contract. Prices offered
nge from 12 to 16¾ cents a pound.

HEN NOT TO USE HOG CHOLERA VIRUS.

"Permanent immunity against hog
olera can be had by the use of serum
d virus," declared the Kansas state
terinarian. "Serum alone will not
jure a healthy hog. Virus should
t be used on pigs weighing less than
fty pounds. It should not be used on
egnant sows, suckling pigs, animals
ffering from any disease, or if the
imals are infested with parasites or
the surroundings are not sanitary.
such instances serum alone should
used until such time when the con-
tions are right. It might be neces-
ry to use a second application of
e serum before giving the simul-
neous treatment. While it is possible
many of these instances to use
rum and virus successfully without
ss, our experience has shown that
times great losses are incurred.
Anti-hog-cholera serum is used as a
eventative only, and it will prevent
disease other than cholera. If
olera is in the herd, virus may in-
ease the trouble. In this instance
rum alone should be used, and when
e animals are in normal condition
ain the simultaneous method may be
plied. If the temperature of the
imal is high, no matter from what
use, virus increases the fever,
hich may kill the animal. Where
gs are infested with parasites, the
ality of the hog naturally is reduced
d virus may kill the animals. The
me results may come when the sur-
undings are sanitary. If a pig
eighing fifty pounds is vaccinated by
e simultaneous treatment, the im-
unity may not last. It is always ad-
sable to use the serum alone under
l doubtful conditions, and if perma-
nt immunity is desired, the virus
d serum may be given after the con-
tions are corrected."

TAKES NO CHANCE ON SHY BREEDERS.

To the American Breeder:—I have
en using the extractor and capsules
r the last two breeding seasons, and
se the extractor on all barren mares,
d I get them in foal as easy as the
ares with nine day old colts. I
ouldn't stand my jack or stallion if
could not use the extractor and cap-
les. Edd Huff, Tillman County,
kla.

Hog Breeding; Lesson III

Editor's Note:—So many of our subscribers have written us of their interest in hogs, that we are continuing, in the following article, a series of "lessons" on hog raising. This material is based on the knowledge of practical men and the best trained observation and experimental data. The reader will, of course, need to give all the additional study he can to the subject, but these lessons should serve well as a general guide and a foundation on which to build.

Care of the Sow at Farrowing Time.

There is no time of the year when time spent looking after the swine herd will pay as much in dollars and cents as at farrowing time. A man may properly feed and care for the brood sows from the time they are bred and by neglect at this time destroy his otherwise good chances to succeed. Great emphasis is placed, and justly so, upon the importance of prolificacy in our brood sows. The number of pigs which a sow farrows, however, is not the most important thing. It is the number raised which determines whether the sow has been kept at a profit or loss. The sow which farrows five pigs and raises all of them is more profitable than the one which farrows fifteen and saves only two or three. The disposition of the individual sow has much to do with the number of pigs she will raise. Proper care at farrowing time, however, also has much to do with the results obtained along this line. It has been observed that the same sow may at one farrowing have a quiet and motherly disposition, while at another time, be decidedly lacking in this respect. Surely the way she is handled and cared for may account, at least in part, for this difference.

Strict account should be kept of breeding dates and a week or so before time for her to farrow, the sow should be removed from the other sows and placed in the quarters where she is to farrow. The feed just before farrowing should be the same kind that will be fed while the sow is suckling her pigs. This feed should contain plenty of protein and should also be rather laxative in its nature. The ration given in the previous article viz.:

Linseed oil meal	10%
Corn	50%
Shorts	25%
Bran	15%

should give good results. A few days before the sow farrows, the amount of the ration fed should be reduced somewhat. If this is done and laxative feed is fed, the sow will come up to farrowing time without being in a feverish condition and will for this reason not be nearly so apt to be restless and mash her pigs, etc., when she farrows.

The amount of bedding provided should be moderate. Be careful not to supply too much bedding. It is easier to give too much than not enough. The place in which the sow is to farrow should be warm enough that a great lot will not be needed for warmth. When too much bedding is used, the pigs are apt to get down in it, are hidden from the sow and are often smothered or crushed. A bushel or so of wheat chaf or cut straw is good. After the sow farrows, do not be too eager to supply more bedding for a day or two. It may have to be changed, but the amount need not be increased. The main thing is not much bedding, but dry bedding. When only a small amount is used, it is sometimes necessary to change it often in order that the sow may have dry bedding at all times.

When possible, the sow should be placed where she will not be bothered by other hogs at farrowing time. Individual cots are of value at such times. Usually the less the sow is disturbed when she is farrowing the better. It is important that one should be on hand, but unless she needs assistance, keep away from her. If the sow needs assistance, be as quiet about it

11¢ A Rod!



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Dawes County, Non-irrigated Alfalfa seed cane, millet and sweet clover seeds. Baled alfalfa hay, all cuttings. Prices and samples free.

SCHWABE BROS., CHADRON, NEBR.

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Medium red clover, big English clover, alsike clover and timothy seed. Boone County white and Reid's yellow dent tested seed corn. Write for samples and delivered prices.

J. W. RICHARDS, Ferris, Ill.

Alfalfa Tiller That renovates, mulches, stimulates, without injury to plant. Catalog Free. **Light Draft Harrow Co., Marshalltown, Ia.**

S. R. FEIL, Pres. Reg. Pharmacist

I'll Stop Your Losses From Worms - I'll Prove it or No Pay

If you will fill out the coupon below—tell me how many head of stock you have, I'll ship you enough **Sal-Vet** to last all your stock 60 days, without asking a single penny of pay in advance. All I ask is the privilege of proving to you right in your own barnyard what I have proved to thousands of other farmers. I want to show you how to rid your stock of worms—how to make all your farm animals grow faster, thrive better, keep healthier, put on more flesh on no more feed—**make you more money.**

The Great WORM Destroyer

TRADE MARK **SAL-VET** REG. U.S. PAT. OFF.

The Great LIVE STOCK Conditioner

is a wonderful medicated salt which rids farm animals of their greatest enemies—the deadly stomach and intestinal worms. It kills and expels these blood-sucking, life-sapping parasites and greatly lessens the danger from hog cholera and many other diseases.

I'll Feed Your Stock 60 Days Before You Pay

Send no money—just tear off the coupon below, mark down the number of hogs, sheep, horses and cattle and mules you own, give your name and address and shipping station and I'll send you enough Sal-Vet to last all your stock 60 days. You simply pay the moderate freight charge when it arrives and at the end of 60 days report results. If it don't do what I claim—if it fails to rid your stock of the dangerous stomach and intestinal worms I'll cancel the charge—you won't owe me a penny.

SIDNEY R. FEIL, Pres.
THE S. R. FEIL CO., Dept. AB Cleveland, O.

PRICES 40 lbs. $2.25; 100 lbs. $5.00; 200 lbs. $9.00; 300 lbs. $13.00; 500 lbs. $21.12. Special discount for large quantities. No order filled for less than 40 lbs. on 60 day offer. Never sold in bulk; only in Trade-Marked "Sal-Vet" Packages. 60 day trial shipments are based on 1 lb. of Sal-Vet for each hog or sheep and 4 lbs. for each horse or head of cattle.

PROOF

"'Sal-Vet' is a great remedy for sheep. It saved me ten times what I paid for it."—W. J. Neff, Millboro, Va.

"Have found 'Sal-Vet' O. K. for horses and colts; it is the best conditioner and worm destroyer I have ever fed."—John Bowles, Rt. No. 3, Holdrege, Neb.

"I have used 'Sal-Vet' for about two years, within which time I have not lost a hog. I consider it a sure preventive for cholera."—F. R. Dalrymple, Carthage, Ind.

"Since feeding 'Sal-Vet' my stock have done better than they ever have before. I have had to give less feed, and my stock looks sleek and fine."—A. Ayers, Cedar Springs, Mich.

(150)

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SIDNEY R. FEIL, Pres.
THE S. R. FEIL COMPANY
Dept. AB 3 1-14 CLEVELAND, O.

Ship me enough Sal-Vet to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days and at that time pay for it if it does what you claim. If it does not, you are to cancel the charge.

Name .....
P. O. .....
Shipping Sta. ..... *State* .....
Number of Sheep ..... *Hogs* .....
Cattle ..... *Horses* .....

UNEEDA HERD DUROCS

of superior breeding and quality. "30 days bargain prices on boars." Two April boars; top herd headers; weight 250 and 290 pounds; worth $50 and $60; price to close out $32, and $37. Ten choice fall boars; richly bred; rich red; good bone and length; weight 90 pounds to 115 pounds at $12.50 to $18.00.

Single comb black Langshan cockerels; high prize strain; extra large and beauties; none better. Prices low. Write

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GOOD SHORTHORNS.

Pratical cattle for both beef and milk. Just the kind the farms of the country need, and with breeding and conformation to make show cattle if you want them. I show my breeding stock successfully, but no stock is ever crowded enough to hurt it.

Pleased to show stock, quote prices and answer inquiries at all times.

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ABERDEEN ANGUS BULL

For sale. A registered yearling, out of sire and dam that weighed 1600 and 1700 pounds at three and a half years of age.

FRANK M. POLLARD, Dexter, Minn.

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as possible. It is essential that the pigs do not become chilled before they have dried off and have sucked. If the weather is very cold a lantern hung in the top of the cot will be of service. At such times, if the sow is gentle it is well to take each pig away from its mother as soon as it is farrowed and place it in a barrel or box containing some hog bricks covered with old sacks. The pigs may be left here until well dried off and lively enough to put with the sow. If pigs do become chilled, there is no better way to revive them than to dip them in hot water. This often will bring them back when other means fail.

The sow should not be fed much of anything for twenty-four hours after farrowing. The pigs are not able to take much milk so the milk flow should not be stimulated for the first few days. The sow will be in a more or less feverish condition so should have all the water she will drink but does not need feed for a day or so. If the weather is cold, it is well to take the chill off the water before giving it to her. The first feed given should be the same as she has been receiving before she farrowed and should be fed in a small amount as a thin slop. The feed may be gradually increased as the pigs become able to take the milk until the sow is getting all she will eat of a good, laxative, milk producing feed. Ordinarily about two weeks should be taken to get her on full feed. After the pigs are old enough to take all the milk the sow can produce, she should be liberally supplied since there is no better way of feeding than through the mother.

CLOVER GROWING FOR MINNESOTA.

To the American Breeder: A large portion of the clover failures can be attributed to a lack of knowledge and consequent inattention to details. It is to the apparently little things that the most successful clover growers attribute their success.

Clover has been grown with varied success in practically every county in Minnesota. Its beneficial action on the soil, its period of usefulness, the wide range of grains with which it can be sown, and its excellence as a hay and pasture crop all serve to commend it to a place in our cropping system and prove it worthy of more general growth by our farmers.

There is much complaint of worn-out soils, weeds and unprofitable crops, frequently coming from those who secured bountiful yields and satisfactory profits on the virgin soil. Those who have made clover an important factor in the cropping system have no such complaint to make.

For details in regard to clover culture and varieties best suited to Minnesota conditions, secure Minnesota Farmers' Library Bulletin No. 47.—University Farm, St. Paul, Minn.

THE BEST DRAFT HORSE GAIT.

To the American Breeder: The draft horse is a utility machine. His true gait is a walk and it is the horse that excels in this particular, along with ability to pull a load, that the market demands. The horse that cannot walk is an abomination and a needless aggravation to its owner. It is the horse that will settle into the collar and step his three and a half to four miles an hour, and with the ability to stay at it, that is wanted and that we must produce. It is a common thing to see a man buying a draft horse (watching it trotted out with a whip cracking behind it) apparently on its ability to perform at the trot, and not even requesting that it be walked out free and naturally.

The draft horse must be docile, alert, and fearless, with an intelligent look, an alert ear, and have the ability to pick up its feet, putting them straight forward in a businesslike manner.

The writer is working horses weighing from 1,900 to 2,100 pounds. I have been making a daily trip to town (seven miles away) with three tons of wheat in one and three-fourths hours. From there I go to another town across country, where I load three and one-fourth to three and one-half tons of tile and make the return trip of nine miles in two and one-fourth hours.

When buying a horse, take the whip yourself. Let the leader walk the horse out and back. Watch its gait, if it drags its feet, or swings them out, let it alone. It must pick its feet up quick and free and move out as though it were ready for any demand. Then let the horse stand. It should stand with its hind feet close together. If it stands with its hind feet apart it must first throw its weight over on its other legs before it can turn. If its hind feet are close together it is ready to turn without the necessity of getting in position first. Try this yourself, stand with your feet close together and turn around and then spread your feet twelve or fifteen inches apart and try it.

Keep these things in mind, and when you select a horse, don't buy just a ton of bone, muscle, and fat, but include the ability to walk with or without a load, able to turn quickly and with ease, or in other words a utility machine. C. F. Jones, Greene County, Ia.

A CHALLENGE TO DOUBTERS.

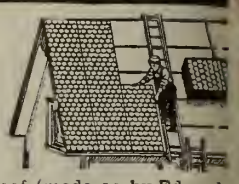
An Indiana subscriber writes "I have talked with some of my customers who do not believe my statement, that barrenness in mares is often caused by a certain organism, which healthy mares are liable to get if bred following a diseased mare. I know I am right, but don't know that I can convince them."

It is true there are some breeders, even who do not believe that this disease exists. To all such the editor of this paper wishes to make a challenge and see whether they really will stand by their doubts. If any breeder in America will furnish three good young mares, in a healthy condition, with colts by their sides, we will find a mare within 15 miles of his place, take some of the material from that diseased mare and put in the uterus of these three producing dams, and he may, breed them to the surest stallion in the country for a period of four months. If he succeeds in settling any one of them during that period we will pay all our expenses. If he is not successful in settling any of these mares he is to pay the expenses of the test. This challenge is made to any breeder in America. It is made for experimental and scientific purposes only. There are many mares that have abnormal conditions in the cervix and that can be bred by the capsule system successfully, which are not diseased, but the biggest thing in horse breeding today is this germ called barrenness in mares. Until the breeders get more familiar with this infection the per cent of foals will continue to be low. Some communities are of course worse than others.

SELLING BREEDING STOCK.

There has been an excellent demand for the right kind of stock during the past season. It is still very brisk. Short crops in some sections have created a timid feeling with a few men only. Some of the best sales made this season have been in sections where the failures have been the greatest in crop production. A general average of prices have been higher than any other year for many years. Even with the general conditions some few breeders have complained about their sales. The great difficulty in disposing of stock is to find a buyer. Before a sale can be made the buyer and seller must get acquainted in some way. There is no better plan than to place an advertisement in a publication reaching a class of men directly interested in a particular class of live stock. If an advertisement is placed in such a publication results should follow because it places the buyer and the seller in communication. This is all any publication can do. If the advertiser succeeds in making sales he will of course patronize that publication again. This publication has the distinction of carrying the advertisements from more horse and jack advertisers than any other publication in the world during the selling season. We have had no traveling solicitors, this business has been built up on its merits. We have found this difficulty that many of our small advertisers have sold the stock by advertising in one or two issues with the result that no more advertising is necessary for that individual, if the sales were not made so quickly it might be more profitable to us but we are glad that we can get such good results. We want to be of some service. Draft horse advertising can be greatly increased if we would only accept certain advertisers. It is our intention to only carry responsible firms and we also expect our advertisements to live up to their representations. We want our readers to have confidence in those who advertise so they will not hesitate to investigate the offerings pubilshed in this paper. We maintain a very cheap advertising rate when the service rendered is considered. $2.80 an inch for each insertion is very cheap when it carries the announcement of an offering to 40,000 men nearly every one of which is a possible buyer. No where else can such service be had for the same amount of money. Those having breeding stock for sale should prepare their advertisement by looking through the other advertisements in the paper and making a little study of what is to be contained in the advertisement; how many words can be put in a specified amount of space. A lot of breeders will carry their stock over another year because they will hesitate to place their advertisement in a publication that reaches men able, willing and ready to buy.

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Why fool with wood shingles that *burn* and *rot* when 135,000 people have found Edwards "Interlocking" Steel Shingles far and away superior? They are fireproof, lightningproof, and rust-proof (made so by Edwards famous "Tightcote" Process) and *cost less than wood!* You can lay them yourself with hammer and nails. Come in big sheets easy to handle. Put on over old roof or sheathing if you like.

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No expert workmen, no special tools, no painting. And the handsomest roof you ever saw. Your neighbors are struck dumb with admiration. They'll all want roofs like yours.

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Ask for Book No. 376 and give size of roof if possible. (148)

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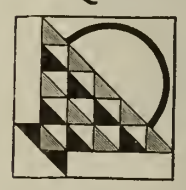
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Every quilter should have our book of **450 designs,** containing the prettiest, queerest, scarcest, most grotesque patterns, from old log cabin to stars and puzzle designs; also crazy stitches and Cat. All postpaid, for 12c, or three complete sets for 30c.

LADIES' ART CO., Box 196, St. Louis, Mo.

SUFFOLKS AIM FOR BONE QUALITY.

One of the entrants to the Suffolk Stallion Show writes:—I note that you ask for size of bone below knee. If you will refer to the Suffolk scale of points, you will note that there is no desire to obtain large bone on a Suffolk. They require quality of bone, as in the thoroughbred, but not large bone. The Suffolk scale of points should not be confused with that of other draft breeds. Large barrel, wide in front and behind, are the principal points.

We should like to hear from other breeders of Suffolks and other draft breeders too. Quality of bone is important, of course, with all horses.

Questions and Answers.

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

738—TREATING MARES—I have two ported stallions and am interested good breeding. As to treating a are, I breed a lot of them that need I use Clarazone and water and some um and water. Is there anything tter? How do you mix them?—Indana Subscriber.

REPLY.—Your treatment has very ttle value. If you will watch the pril 5th issue you will find the most ccessful treatments for such cases. will be given in that issue in de·il.

739—DOCKED HORSES—I own Hon·ux No. 86059, an imported Percheron llion. Of course he is "docked." I ve had several men, who have seen is horse, tell me that the breeders of ance never breed a horse there after ce docked. All docked horses are marked as a recognized fact that ey are not fit stock to be bred in ance. Please give me a correct state·ent on this subject.—Nebraska Sub·riber.

REPLY.—There are some who are ry anxious to start reports which ll be injurious to a competitor. A an making such a statement is either norant or crooked. Most of the rses in France are docked and near· all stallions are left entire. Very w geldings can be found in that untry. In most European countries majority of the horses are docked cause there are not many flies to ntend with. We should like to see e American trade demand long tails this country. A docked horse can·t fight flies properly. Those un·asonable "fads" should have very ttle value over here. Unfortunately e do not have much influence over ose foreigners and this condition ill probably continue.

740—TIMID JACK—I have a fine ck three years old. He has been hand d and is quite a pet; somewhat raid of stock. Does not serve. Was ry poor until this winter, although has grown well from a colt. Is 16 nds standard measure. What can I to get him to serve?—Missouri Sub·riber.

REPLY.—Immediately place a timid are or a young filly in the stall next this jack, one that will not fight make any disturbance. Let him t acquainted with her. You should ve done this long ago. Arrange me way to get them in close contact he will not be afraid of mares. It not advisable to have a mare next him which is liable to be in heat he might form the habit of mas·rbation. After he has mustered up little more courage, get a small are that is in good heat; bring her to his barn where he is at home and ill not be afraid of anything. Be ry gentle with him and see if you nnot get him to make a service. andle him very gently and if the are should make any moves which e liable to frighten him, put a twitch her; make her behave. If you can·t get a service this way, get an ex·rienced jack man to come and help u. It may take several weeks to t this fellow started. Do not use a nnet or a mule. If he is a good jack u can afford to put in a consider·le time with him. Give him a lump sugar or a carrot or something od to eat when you go around him. ever touch him with a whip or old him.

741—FISTULA—I have a pair of ares and one of them has a fistula d the other has a pool evil. I have ade some small operations a couple times. It will heal up for a couple three months and then break out ain. If you can give me some in·rmation that will lead to a cure I will very much appreciate it.—Idaho Subscriber.

REPLY.—Cases of this kind are best treated with a surgical operation and you should consult some well qualified veterinarian with a view of having him operate on them. Any agent you would inject into or apply to the parts would be very uncertain and disappointing in its effects.

742—A THREE YEAR OLD JACK—I bought a jack; he will be three years old in April; he measures nine inches below the knee; 15 inches around knee; 18 inches around hock; 65 inches around back of forelegs; 33 inch ear; 15 hands high. Is this considered a good jack? How many mares can I breed him to this season, and do him justice? Oklahoma Subscriber.

REPLY.—You have a good average jack; his bone is better than the average. He is well proportioned and should develop into a good mule jack. You can breed three or four mares a week, no two services closer than 24 hours. Do not allow him to use a paddock where mares are bred. Keep all mares in heat far enough away so that he cannot see or smell them except during service.

743—JACK SORES—I have a large jack three years past that has sores on the front of hind leg at hock. First it looked as though it was scratched with barb wire, but they tell me it is jack sores. I have tried several remedies, but so far have failed to heal them. He has always been kept in clean stalls with fresh bedding every night, and allowed to run in fields when it is not stormy. Please tell me what is the cause of these sores and what can be done with them.—South Dakota Subscriber.

REPLY.—Have your veterinarian take some of the material from that sore and grow it in cultures and have bacterins prepared from it. Inject this under the skin. Poultice the sore with a hot bran poultice for several hours. Wash it with castile soap and dry it with a clean, soft cloth. Have your veterinarian make an examination and prescribe something to remove the growth, after which it should be poulticed again, then use drying powder.

744—SWELLING IN MARE—I have a mare that will bring a colt in 10 or 15 days and she has a case of fearcy. She has had a light case for three months and it seems that giving stock remedies don't do any good. I tapped her and there was yellow water run out and she was better for a few days and then it commenced to get along under the belly and has got as far as between the forelegs as thick as my hand. I did think of putting a rowel in front of the swelling on the breast, gathering the skin up in thumb and finger, cut a hole through and draw a piece of cotton cloth to make it matter and put some salt in cut to make it matter sooner; it might draw the matter out until the blood can be fixed. Is it advisable to do this? I will be very glad to have your advice.—Kentucky Subscriber.

REPLY.—Don't jimmy round with stock foods, jack knives and rowels in these cases. You are liable to do irreparable harm in trying to effect a cure of something dependent upon pregnancy itself. Give the mare an opportunity to take exercise, moderate laxative feed, a clean, well bedded box stall at night and leave her alone. When she foals this swelling will disappear in the course of time.

745—COTTON SEED MEAL—I would like to know if cotton seed meal is good to feed to stallions; about one quart of it mixed with other feed. Will it have anything to do with a stallion foaling mares? Is it too strong feed for stallions in breeding time?—New Mexico Subscriber.

REPLY.—A very small quantity of cotton seed meal at each feed might not be injurious to stallions. It has been fed to work horses and mules with fairly good success when fed sparingly. We do not advise taking any chances with valuable stock. The best and safest feed is usually the cheapest for good stock.

746—RUBBER BREEDING INSTRUMENTS—Is it safe to use rubber goods in breeding operations?—Iowa Subscriber.

REPLY.—The kind of rubber goods usually found in breeding instruments which have been on the market heretofore, is of a cheaper quality and will not stand continuous boiling. Pure gum rubber can be used but should be flushed out with boiling water each time before being used.

747—LOCK JAW—I have a six year old Percheron mare that dropped a colt last March; she was capsule bred on June 7th. On July 3d she had a very bad attack of lock jaw. I called a well qualified veterinarian. As he arrived he saw her neck and limbs straighten out and she was lying flat on her side. He said, "John, you have here a dead mare in a short time, and as far as I can see it's due from heat. We'll give her a dose of serum anyway and see what it will do to her." In six hours the jaws unlocked and in the course of three days she seemed to be well. Thinking that she certainly

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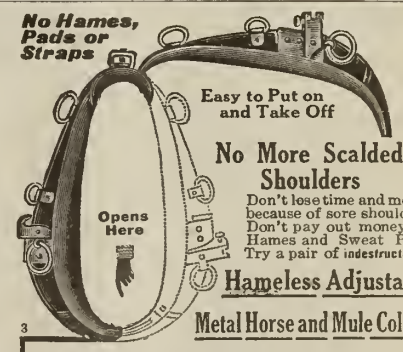
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could not be carrying a colt I thought of marketing her. To my surprise this mare is now safe in foal; is in fairly good shape; eats well; her hair is rough looking for her. Do you think she will foal O. K., if not what must I do to help the matter to the good. Is lock jaw more apt to return?—Iowa Subscriber.

REPLY.—While your mare may have had a "locked jaw" yet she did not have tetanus proper, and we think the short duration of the attack should have no ill effects on her giving birth to her colt. Do nothing beyond the good care due every mare approaching the foaling period.

748—REGISTERING A COLT—I would like to know if I should buy a mare in the old country and she was in foal, and this colt be foaled while on the water, could I have the colt registered?—Illinois Subscriber.

REPLY.—If the mare is registered in a recognized association in Europe and the sire likewise, the colt can be registered. Write to the secretary of the record association where the mare is registered for application blanks.

749—BREEDING WITH AN IMPREGNATOR—Will breeding mares with an impregnator work just as well as breeding with natural service or with capsules Please give instructions for breeding with impregnator. —Missouri Subscriber.

REPLY.—Capsule breeding is the most successful when properly done. It leaves a quantity of fluid together and is not liable to be thrown out. After the mare quits straining the capsule will dissolve and allow the fluid to remain longer than when bred with the impregnator. When a capsule is used the operator knows how much he is putting in. Some breeders have had good results by using the impregnator. Too many men have not been clean enough with their work neither have they understood how to keep the right temperature The principle difficulty with artificial breeding of any kind is that too many men have used it only on seriously diseased mares. With any instrument the hands must be thoroughly washed, the instrument must be boiled before it is used; the temperature of 100 degrees should be maintained for the best results. Make the service on the cleanest and healthiest mare so as not to carry any infection to the next mare; transfer the semen from one mare to the other with an impregnator.

750—URINATES FREQUENTLY—I have a five year old horse that urinates very frequently, some days every 15 or 20 minutes; it is scant at those times, not more than a spoonful at a time and at times the urine is very thick and ropy and looks more like cream colored paint than like urine. Small boils or lumps come up under the hide on his shoulders. Could you tell the cause and treatment for same? —Kansas Subscriber.

REPLY.—It is quite likely that your horse is annoyed by an irritated bladder. Give him a couple of teaspoonfuls of sanmetto in his feed three times a day. Look carefully to the feed and know that it is sweet and sound and free from mold.

751—INJURED FROM TOO MUCH SERVICE—In case you should run on to a jack that had been overdone by making too many services, how should we take care of him to overcome it? —Missouri Subscriber.

REPLY.—We would consider that a jack of this kind would be expensive at any price. There is only one way to handle a sire of this kind; limit his services to one mare a day and use the microscope at every service. The best lesson you can draw from this particular jack is not to injure the next one. This jack may make a natural service so far as you can detect with the naked eye. It may contain all of the necessary fluids except spermatozoa. An occasional service may be fertile. The microscope will be your only guide with an animal of this kind.

752—SHY BREEDING MARES—Last season I had two or three mares come to my place to be bred that we could not get with foal. One breeder told me that I ought not to have bred them at all. These mares seemed to be healthy every way except their urine which seemed to have a whitish look—milky. It also seemed to be druggy. I used the saline treatment, but it did no good. What should I have done with these mares, and what shall I do with them next season if they come back?—Missouri Subscriber.

REPLY.—The saline treatment used often enough might have cured these mares, but a serious condition of this kind should first be treated with the iodine treatment and then followed with the saline solution.

753—FOUNDERED STEER—I have a two year old steer that acts like a foundered horse. Not so bad in his hind parts as in his fore parts, especially in left fore foot. His hoofs are growing long; he complains when he gets up. He eats heartily. He has been in this shape for about one year. Would like to know remedy.—Oklahoma Subscriber.

REPLY.—We do not believe you are justified in spending much money on an animal of this age for if foundered the case is of such long standing that you cannot expect much improvement from such treatment as you could give. The better plan is to push this steer along and market him as soon as in condition.

754—STARTING THE BREEDING SEASON—Last spring when the breeding season began with my five year old Percheron stallion we bred two mares every day and sometimes three for the first thirty days. During this time he got a few colts, but the remainder of the season after breeding 137 mares he did not get a single colt. This stallion is in good condition and was a sure foal getter last year. He had a good warm barn, plenty of feed and in good flesh. What was the difficulty?—Iowa Subscriber.

REPLY.—A lot of stallions are injured every spring the same way. This one has been knocked out. You should have bred one mare the first week, two the next, three the next and four or five the next and brought him into his work by degrees, and the outside limit on a continuous stand of this kind, is two mares one day and one the next. You would then probably skip a day. Those who have been using the microscope since we have advocated its use, have learned much about the number of services for mature stallions and jacks. There are very few stallions that can discharge live spermatozoa nine times a week for three weeks without skipping occasionally. There is very little use to deposit fluid in a mare unless it contains live spermatozoa. This statement is very misleading. Occasionally a stallion will make four or five services in one day and fertilize the last one, or he may do this for several days and fertilize the last one. He may occasionally fertilize a very difficult mare while he is being used to the limit. But the intelligent thing to do is to use a microscope and when the spermatozoa does not show sufficient movement it is an indication that the animal is not in a good physical condition. When a stallion does not discharge live spermatozoa during these excessive services, the genital tract is being over done which may result in some inflammatory condition being started somewhere that will impair his future usefulness.

755—STRING HALT—I have a jack that seems to be stringhalted in his right hind leg; it is just coming on him. Can there be anything done for him to cure it? This jack is five years old and a good one. He has always had a good deal of exercise, being in a small pasture so that he can exercise at his own will. He has had a little less exercise this winter than usual. Please give me some information.—Missouri Subscriber.

REPLY.—String halt is an incurable affection excepting by a surgical operation. We would suggest that you call in a good veterinarian with the idea of having this done, as the operation relieves the majority of cases.

756—FRETTING STALLIONS AND JACKS—Is there any danger of heavy horses or jacks fretting in breeding season?—Mississippi Subscriber.

REPLY.—All breeding stock should be handled in such a way that they will not fret. If a stallion or jack worries in his stall it is usually the way he is penned up. Give him an opportunity to stick his head out of a window where he can see what is going on. Put a gentle gelding in the next stall where they can be company but not get together. A cheap old horse of some kind can very frequently be used to a good advantage as company for one of these animals. A more profitable plan however would be to have a pregnant mare in the next stall and her feed would not be lost. It requires more feed for an animal when they are continually fretting and it is injurious to make a service while an animal is warmed up in such a condition.

757—CONTROLLING THE SEX—Does the egg that is deposited by the mare control the sex of the colt? Are the germs in the semen of the horse males and females? If a mare is bred to several horses and jacks, and germs of each penetrate the egg of the mare which will be the sire of the colt If a mare is bred to two horses the same days, which will be most likely to get the colt, the first or last cover?—Missouri Subscriber.

REPLY.—Carefully read the horse breeding lessons in this issue, and those to follow. All of these things



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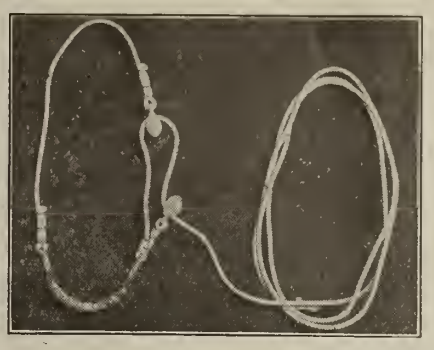
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758—BRITTLE FEET—What is the cause of jacks hoofs scaling off? One of my jacks is awfully bad. He is three years old; 15½ hands high and a good individual. What is the best thing to do for his feet?—Oklahoma Subscriber.

REPLY.—It is quite likely that your jack has been kept confined too closely to his stall; perhaps has been kept on heating manure which is very injurious to the hoofs. Soak his feet so as to soften them up and afterwards keep him out in a clean paddock as much as the weather will justify. Apply a coating of vaseline occasionally to the hoofs to which a little pine tar has been added. A light blister to the coronet every three weeks will promote a more healthy growth of hoof.

760—PERCHERON OR NORMAN HORSES—Is there any difference between a Percheron and Norman horse? —Iowa Subscriber.

REPLY.—The word "Norman" is not used with any breed of draft horses now. Percheron is the correct name.

761—DRUGS FOR A SLOW JACK—I have a jack that is a little slow in serving. I wrote to Dr. L. B. Michael, D.D.C., of Illinois. He told me to write to the American Breeder and ask them to put me in touch with Dr. Reed, who puts up some special tablets for slow jacks. Please send me his address.—Oklahoma Subscriber.

REPLY. — The doctor evidently wished to do you a favor, but we very much doubt the value of his advice in this case. The medicine referred to has been a failure in most cases that we have heard of, and a lot of good animals have been ruined. A better plan for you is to begin with kind treatment and gradually get on good terms with this jack. Get a little urine from a jennet that is in heat; keep it corked up tightly; put your mare in a pit; put a little of his urine on her tail or in the pit so the jack can have an opportunity to smell it. This usually gets good results. Feed your jack good oats and a little alfalfa or clover hay; increase the grain ration and diminish the roughness. Give him as much energy as you can. Keep all jennets and mules out of sight. Many of these slow jacks can be made servers. Do not allow the mare to make any fuss; it may frighten the jack.

762—MARE ABORTED—A mare bred May 21st aborted in January about the 15th. What treatment should I use, the saline or iodine, or will either do any good? When can she be bred again without any danger of her dropping the colt. It was her first colt and I don't know what caused her to abort.—Missouri Subscriber.

REPLY.—If other mares in your community are not losing their colts we would guess that this abortion was brought on by an accident or wrong kind of feed. Let your mare go until the weather gets warm and then breed her, if she seems to be in a healthy condition. About next January or a few weeks earlier than the time when she aborted last year corresponding to the date of service, watch her closely and if any symptoms of an abortion are displayed, feed her black haw.

763—FILLY GIVES MILK—We have a filly that will be a year old in June that is giving milk like an old brood mare. It runs away from her in streams. What is the cause and what can we do to stop it and dry her up? It is a valuable filly (thoroughbred). —Missouri Subscriber.

REPLY.—Proceed just as you would in drying up a mare or cow. Keep the filly on rather scanty dry feed, and of such character as does not promote a good flow of milk. Milk her out partly only as often as necessary to relieve the udder. By persisting she will dry up in time.

764—A RANK SERVER—I have an imported Percheron stallion, 12 years old, that has been a sure foal getter until last season. He seems to be in the best of condition and serves as well as he ever did, but does not discharge any semen. The horse is an extra good one and has never served more than two mares in a day; is a rank server and seems as vigorous as a colt. Is there anything that can be done for him to get him to breed again?—South Dakota Subscriber.

REPLY.—If your stallion is not masturbating he may be greatly improved by soaking the penis in hot water. The water should be started slightly warmer than body heat and gradually increase the heat until it gets as warm as he cares to stand it. Lead him out where he can see a mare, which will cause him to get an erection. Have the vessel containing warm water ready. By this method you should have little difficulty in bathing the penis. Keep this up once or twice a day for ten days. When you try to serve a mare, open her up by placing ground slippery elm on your arm so he will have little difficulty in making the entrance. The mare should be gentle and in good heat. As the service is being made, allow the mare to take a few steps slowly so as to give him an opportunity to expand all the muscles used in this operation.

765—WINNERS IN AMERICAN BREEDER JACK SHOW—Would like to know the numbers of the prize winning jacks in your contest held last August.—Kansas Subscriber.

REPLY.—No. 21, first prize; No. 30, second prize; No. 28, third prize; No. 42, fourth prize; No. 33, fifth prize; No. 47, sixth prize.

766—TOO MANY SERVICES—My Clydesdale stallion when three years old covered 65 mares. Many of these mares were bred two or three and some four times. This last season he bred 81 mares and will only have a few colts this spring. I have had a better class of mares this year than last. Can you tell what to do for him? —Minnesota Subscriber.

REPLY.—You made too many services with your stallion before maturity. You may improve him by only making one service a day during the breeding season. Give him plenty of exercise. He might be benefited by putting him into the harness and given manual labor for several months or a year. You can never expect him to be as sure as nature intended. Breeders must learn that animals can easily be ruined by too much service before maturity. It is frequently said that in some countries in Europe that a stallion often makes as many as ten services in a day. Which is true, but not many of them are used excessively before maturity. Mature animals which make many services in one day may not total as many services in a season as are frequently made in this country with a less number daily. Many of the good stallions in Europe are injured; some permanently ruined from too many services.

767—NAVEL ILL—Can you give me any information regarding two full blooded Percheron colts; both had navel trouble. The first one I had a competent veterinarian treat. He burnt the navel with caustic and then vaccinated. This colt's hair turned bad color and when six weeks old she swelled in hocks and in about ten days died of blood poisoning. The other colt I treated with caustic myself and did not vaccinate. Her hair never looked bad. Took her navel a little longer to heal, but she seemed to do far better than the colt that was vaccinated. Do you recommend vaccination for leaking navels?—Illinois Subscriber.

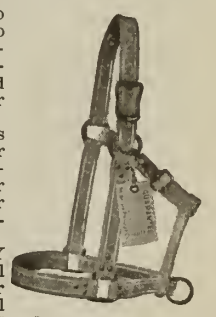
REPLY.—One cannot tell from the appearance of the early symptoms just how a case of navel ill will terminate. Vaccination in these cases is in order in conjunction with local treatment and had nothing to do with the condition of the hair mentioned.

GETTING AT HORSE BREEDING FACTS

The American Breeder is starting on its seventh year of getting at the facts of horse breeding and the horse business generally. No other publication has done this. That is the reason for the American Breeder. On pages 25 to 31 of this issue are the beginning numbers of the most important series of lessons on horse breeding ever printed. These appeared in the American Breeder about a year ago, but are being repeated because hundreds of old readers have asked for them, and thousands of new readers have not had them. To save space and because they have appeared once, these lessons are printed in small type. They are extremely important nevertheless, and as they form the foundation for understanding the lessons that are to follow, they should be saved and carefully studied.

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Used by Buffalo Bill — Sells Floto Shows, also Denver Fire Department. Guaranteed satisfactory or money back.

Regular dealer's price, $3.00. For advertising purposes we offer sample halter for $1.50 on **direct factory shipment.**

WRITE TODAY and shipment will be at your door within a week, all charges prepaid. **Send no money unless you care to do so.** Should cash accompany order we offer four halters for $5.00. Remember, if you decide upon examination that you don't want the halters, your deposit will be promptly refunded at our expense. Fair enough, isn't it?

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ABSORBINE, JR., antiseptic liniment for mankind, reduces Cysts, Wens, Painful, Knotted Varicose Veins, Ulcers. $1 and $2 a bottle at dealers or delivered. Book "Evidence" free.
W. F. YOUNG, P. D. F., 388 Temple St., Springfield, Mass.

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(Opthalmia), **Cataract and Conjunctivits**
Shying horses all suffer from diseased eyes.

"VISIO" will convince any horse owner that it is the best remedy for defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our money back GUARANTEE.
$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2475 Calumet Ave., Chicago, Ill.



$3 Package CURES any case or money refunded. $1 Package CURES ordinary cases. **Mineral Heave Remedy Co., 404 Fourth Ave., Pittsburgh, Pa.**

768—SELECTING A JACK—If I should go to see a herd of jacks and finally simmer them down to two, each being good, smooth individuals with the same size bone, one with a better head and ear and the other a better body and not quite so good in head and ear, which jack should be first choice as a breeder and at the same price?—Kansas Subscriber.

REPLY.—Select a jack with a big body. A jack should have a good masculine head; the ears have little value. The Poitou jacks produce the largest and the best jacks in the world and they have just medium-sized ears. What we need is more bone and more body and more jack; ears take care of themselves. There was a time when breeders selected the ugliest jack with the longest ears, but now days the market demand is for the big jacks with plenty of weight. Every beast of burden must have a bread basket.

769—LAMINITIS—I have a good jack that I think got foundered on ground wheat. He is very sore and the soreness seems all in front feet. I gave him first a quart of raw linseed oil, then blistered shoulder and around hoof with some liniment. This seems to be a case of laminitis. How shall I treat him?—Kansas Subscriber.

REPLY.—We could have given you a more satisfactory reply had you stated when the jack was foundered; that is, how chronic is the case at this time. Soak the feet for several days in water or cold mud so as to soften them and at the same time reduce the inflammation. After this is accomplished continue to blister the parts just above the hoof line every two or three weeks, preceding the blister with the mud bath for a few days.

770—IODINE TREATMENT — Please give me the receipt for iodine treatment and saline solution, and how to use them?—Colorado Subscriber.

REPLY.—The three standard treatments will be given in detail in the April 5th issue. Please preserve that copy of the American Breeder for future use.

771—PREMATURE BIRTH — Mare slipped twin colts and both were alive. Mare was about eight months along. Have two others in foal from the same horse. These three mares have milk and lose some now and then. This one mare aborted six years ago, but raised two colts since. Is there danger of the other two losing theirs? Am feeding straw, corn fodder and a little oats. These mares have not been working. —North Dakota Subscriber.

REPLY.—It is not usual for colts to live when foaled at eight months. We have no way of judging whether or not your other mares will foal prematurely as you do not state just how far they are from the birth period. If abortion is impending give two teaspoonfulls of fluid extract of black haw in the feed two or three times a day.

772—CAUSE OF ABORTION—If a mare in foal ate some tankage one evening and slunk her colt the following afternoon, would the tankage be the cause?—Iowa Subscriber.

REPLY.—We could not decide this case definitely from your meager description, but we should guess by the time and the result that the tankage was responsible for this difficulty. There are many other things that will cause an abortion, but the only thing you have mentioned is the tankage.

773—WAS IT A SHIRE OR CLYDE.... —Will you give me information in regard to the gelding "Archie' 'that was sold at auction in Chicago as a Shire gelding? Was he ever shown in the great six-horse team of Clydesdales belonging to Nelson Morris and Company of Chicago? Also state the amount he was sold for.—Michigan Subscriber.

REPLY.—R. B. Ogilvie, Union Stock Yards, Chicago, is secretary of the Clydesdale record association, and superintendent of the horse division of the International Live Stock Exposition. He might be able to give you the information you desire.

774—SWELLING—I have a large Percheron mare, seven years old. Before foaling last March she became greatly swollen from her bag to her front legs. Some call this "milk phersy." Today she still has some swelling, but not quite so bad. She failed to get with foal this year. She is fat and sleek and this does not seem to hurt her. Please tell me what this is and what to do for it.—South Dakota Subscriber.

REPLY.—Such swellings as you describe are not uncommon in mares when heavy in foal, and are chiefly due to a retarded circulation. In the case of your mare it is quite likely that a portion of the swelling has organized and become permanent. Moderate exercise either at work or running out will aid as much as anything in reducing the enlargement. Do not permit your mare to stand long in the barn.

775—STALLION WITHDRAWS — I have an imported Percheron horse; he serves a mare and when he comes off there is from one-half to a tea cup full of semen comes out. He is very rough in serving mares and has the largest penis I ever saw on any horse. He is not a sure foal getter. What can I do with him. Does the semen go in the womb while the horse is serving or later on?—Texas Subscriber.

REPLY.—The long penis stallion is not usually a satisfactory producer. They nearly always discharge in the vagina. The mare does not have the same opportunity that she would have with a smaller penis. The uterus is hung on ligaments in such a way that the os uteri can meet the opening in the penis and receive its contents. When the penis is too long it crowds the cervix to one side, which prevents the fluid from entering the womb. You can greatly assist this horse by using the capsule system. You can also assist him by putting a good Conqueror bridle on him and teaching him to be gentle and make a mount slowly. Put the mare in a pit made especially for such service; fill in under the mare from six inches to a foot so that she will have a better opportunity to perform her part in the cervix.

776—SWEET CLOVER—What about some sweet clover? Do you know who has any seed for sale —Iowa Subscriber.

REPLY.—Schwabe Brothers, Chadron, Neb., advertise sweet clover seed for sale and will send prices and samples on request. About as good information as you can find on the subject of sweet clover appeared on page 4 of our issues of January 20.

777—REMOVING WHITE HAIRS—I have a coming five year old gelding that was injured a year ago on the side well up on ribs, close to the back. I took care of the wound and it healed up all right, but the hair came out, white; I have blistered it now and took the hair off. Can you give me a remedy that will restore the hair to the natural color —Iowa Subscriber.

REPLY.—We cannot give you any information as to restoring hair to its natural color.

778—IOWA STALLION LAWS — Would like to know the Iowa stallion laws.—Iowa Subscriber.

REPLY.—You can hold the colt for six months after it is born. If you want a copy of the stallion inspection law, write to A. B. Corey, Secretary, Stallion Registration Board, Des Moines, Iowa.

779—BELGIAN OR GRADE PERCHERON—I have a Percheron mare that has been bred to a good Belgian the last two years. I want to keep her colts to raise colts so as to stock up in mares for my own use. Would it be better to breed her to a Percheron? If so, would it be better to breed her to a good grade Percheron than to a good imported Belgian —Nebraska Subscriber.

REPLY.—Use the imported Belgian in preference to a grade.

780—UNCERTAIN JACK—I have a jack that was four years old last November; good size and a fine performer; as quick as a horse; in good health and in good fix. I set in last spring in March and bred him to two mares a day for about one month. His mares did not seem to settle as I thought they ought to and I switched them to my two older jacks. Some of the mares bred to this young jack went as long as three months and then came in again. He may have as many as two or three colts this spring. His testicles are not as large as they ought to be now. Please tell me if you think he will be a good breeder or not. He hasn't served a mare since last April. I want to use him this spring if he is any good.—Texas Subscriber.

REPLY.—We fear you have overdone your jack, as two mares a day for 30 days are too many, especially in a four-year-old with illy developed testicles. It is doubtful if he ever proves reasonably sure again. Keep him in good condition and give sufficient exercise to keep him in the best health possible. Test his semen with the microscope and breed him very moderately.

781—STALLION COLLARS—I have a large draft stallion which will be broken to work. Is it better to have a large leather collar made or use a humane collar?—Illinois Subscriber.

REPLY.—If a stallion is accustomed to his regular work, which is quite heavy and continuous, we would advise having a large leather collar made for him. In your case we would advise a humane collar. After this horse gets familiar with the work, his neck and shoulders will change so that the collar made for him at the present time would be entirely too large. A humane collar can be changed and adjusted to meet these conditions. There is not as much danger of sore shoulders or neck with a humane collar, and for all practical purposes it is more satisfactory. There is not much danger of galling the shoulders and having white spots appear. You can also use this humane collar for any other draft horse you may have. The ordinary collar is not large enough for a large draft stallion; it should be a special order.

782—HAMBLETONIAN HORSES—I would like to know where Rysdyko, the fountain of the Hamiltonian stock of horses, sprang from and where he was foaled. I think he was foaled in 1849; I think in Kentucky. He was the sire of Dexter and the grand sire of Goldsmith Maid, Maud S, etc., and J. I C. and the great, great grand sire

30 Head of Jacks For Sale

From Two of the Best Herds in the State of Kansas

From 14 to 16 hands high; 2 to 6 years old. Nicely broken and good workers. Good serviceable jacks and prize winners. We won more premiums at Hutchinson State Fair last year than all other exhibitors combined. Everything guaranteed as represented. Write us your wants, or visit our farms.

H. T. HINEMAN & SONS, Dighton, Kas. **D. J. HUTCHINS, Sterling, Kas.**

HOME OF THE GIANTS.
100—JACKS AND JENNETS—100

"Our motto is from good to as good as grow." Some real herd jacks. Our jacks are all Mammoth and are the big, thick, big boned; big footed kind. Raised mostly by ourselves and our neighbors. Every one guaranteed as represented.

BRADLEY BROS., Warrensburg, Mo.
65 miles east of K. C. on Main Line Missouri Pacific.



JACKS, JENNETS, PERCHERON MARES

We wish to announce to prospective buyers that we have 23 head of jacks—the good kind—raised on the farm, ready for sale this spring. This is strictly a breeding farm, no brokerage; 50 breeding jennets, headed by Paragon and Jumbo Mammoth, two great jacks.

Ten imported Percheron mares, headed by imported Kossuth, the best that money could buy in France; a span of coming two-year-old fillies; a coming two-year-old stud, will make a ton horse. The offering this year at reasonable prices.

OAKLAND STOCK FARM, BOX 207, CHILLICOTHE, MISSOURI.



HEADQUARTERS FOR JACK STOCK

LIMESTONE VALLEY STOCK FARM.

The best trade of North America has for years supplied itself largely with Jacks and Jennets from our herd. The World's Greatest Show Yard Winnings and Public Sales are a part of our record. The same honest values always open to private buyers; the Square Deal for all.

L. M. Monsees & Sons, props., Smithton, Mo.

ALL MY JENNETS, JACKS AND PERCHERON STALLION FOR SALE, ACCOUNT OF DEATH IN FAMILY.

15 jennets, good, heavy bodied, big boned, good colored, good breeders, mostly reserve stock.

6 jacks, as follows; Herd jack, 8 years, 15½ hands, standard, 1040 lbs. actual weight, black with white points, cost me $1,000 in July, 1911, the best breeder in this section and would not be for sale at any price if I was keeping the jennets; 6-year-old jack, 15¾ hands, standard, 1100 lbs., color, bone and feet the best, good breeder, colts to show; 2-year-old jack, by my herd jack, 15½ hands now and will make a 1200 pound jack, ears 3½ inch, tip to tip, bone below knee 9 inch, below hock 10 inch, broke to mares and will make a great jack.

Percheron stallion, 6 years, registered P. S. A., gray, 2075 lbs., actual weight, heavy boned, fine disposition, a prize winner and a great breeder, colts to show, fillies by him weigh 1320 lbs. at 2 years, on grass.

H. A. WEHRMANN, **ROUTE 1, MONTICELLO, MO.**

Registered Jack

For sale at $500, or will trade for draft mares; 8 years old; good breeder; colts to show. For particulars, address,

FOND DU LAC BRICK CO.,
Fond du Lac, Wis.

JACKS AND JENNETS

For sale; seven jennets, four jacks; 13, 13½, 14½ hands; all young; must be sold. Would trade for young horses or mules.

W. C. FITHEN **Richville, Minn.**

THREE JACKS FOR SALE.

Black with light points; old enough for service. Six young ones in the barn

J. T. HEWITT.
MENDON, ILLINOIS.

14 GOOD BREEDING JACKS.

Also imported Percheron and Belgian stallions; some weigh 2160 pounds. Stock for sale on long time payments, 1, 2 and 3 years at 6 per cent.

R. I. LITTLE, Route 2. FAIRFAX, IA.

JACKS

For sale. Two extra good ones; 3 and five years old.

W. J. STRONG, **Moran, Kans.**

GOOD THREE YEAR OLD JACK.

For sale, or would exchange for good Percheron fillies or mares.

A. J. DUNAWAY, **Chilhowee, Mo.**

JACK FOR SALE.

Coming 3 years old, 14¾ hands, black with white points, plenty of body and bone, fine head and ear. Sound and right every way.

F. A. WINTER, REPUBLIC, MO.

JACKS FOR SALE.

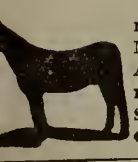
Seven first-class jacks; ages one to six. Bred right; raised right. Priced to sell. Colts to show. Mares in foal for those of proper age. Also some good jennets; ages one to seven.

L. W. Garriott, Austin, Scott Co., Ind.

FOR SALE

Three extra good jacks and one Shire stallion.

H. H. EISENBATH, **Wentzville, Mo.**



300 HEAD of Colorado raised Jacks, Jennets, Mules and Brood Mares. All guaranteed. Prices right. **Lewis Swink & Son, Rocky Ford, Otero County, Colorado.**

Six Jacks

or sale. One extra good 3-year old ast. Come and see this jack and if ou don't find him a great big, good e. I will pay your car fare.
T. E. COLLINS & SON, BELLEVILLE, KANSAS.

5-JACKS--6
7-JENNETS-17

The jacks are three and four years d, and they and the jennets are all ood stock. All black with mealy oses. I want to close them out this ring, and will make the prices right
OHN A. EDWARDS, Englewood, Kas.

22 TENNESSEE JACKS



Fine large; all es. Also 12 jennets foal.
Also fine saddle allions. Prices right. sk for catalog.
W. JETTON & CO., Murfreesboro, Tenn.

MAMMOTH JACKS

For sale—Large, heavy boned, 15 to hands high. Prices from $250 up. ocated eight miles west of Cedar apids, Ia., near Fairfax.
OHN HENRY, Fairfax, Ia.

Jack For Sale

Black; 15½ hands, standard; big ot and bone; 34 inch ear; 900 pounds; show jack; 2 years old last Septem- er; broke on mares. I raised this ck and can't use him but he is good ough for anybody's herd of jennets.
OHN TOOLEY, Anabel, Mo.

25 Mammoth Jacks and Jennets

For sale. I have more high class cks and jennets to offer the public is season than I have ever had be- re. They are bred right; priced ght, and fully guaranteed.
JAS. M. SPURGEON, Williamstown, Lewis County, Mo.

OOD KENTUCKY JACKS AND JENNETS FOR SALE.

1 herd jack, 16 hands, 35 inches tip tip of ears, 9½ inch bone, biggest f feet, and one of the biggest and best cks in Kentucky; a great sire of both ck and mule colts.
12 good jennets, all right, and black ith white points. I advertise because want to sell and I'll sell them worth he money. **W. L. Garriott, Route 2, Smithfield, Ky.**



50 registered, big boned black jacks and jennets. Colts to 16 hands; big, stylish, good lookers; great mule jacks. **J. H. SMITH, KINGFISHER, OKLA.**

BLACK MAMMOTH JACKS.

Own breeding; from 2 to 5 years. Just sell some at once to make more oom for other stock. Will price right o sell at once. All big ones.
TRUESDALE STOCK FARM, Speed, Cooper County, Missouri. Trevor H. Moore, Prop.

JACKS AND STALLIONS

For sale. Registered jacks; all black with white points; from 15 to 15¾ hands; from 3 to 6 years old; well broke and as good as grow.
Percherons from 2 to 8; the big, good kind, weighing from 1700 to 2100 pounds; all guaranteed as represented
J. E. PARK, Owner, CAMERON, MO.

ONE SPANISH JACK

for sale or trade for mares; 8 years old. Can show mules. For particulars write
JOHN M. MISCHKE, Crofton, Knox County, Neb. Route 3.

To you is made the special subscription offer on back page.

of Nancy Hanks and Sunol and the great, great, great grand sire of Abbott and Cresceus. Would like to know where this breed sprang from. Is there such a breed registered as the Kentucky Whip? If so, what was their blood?—Utah Subscriber.

REPLY.—The Hambletonian horses originated from the Thoroughbred. The Kentucky Whip is a strain of Thoroughbred horses.

783—WHAT BREED OF CATTLE—I am just starting out to go to farming. I want to ask you about some stock. Now which do you think is the best kind of cattle to start out with. I want to start with good stock. What do you think about the Swiss cattle? Do you think they are all right?—Iowa Subscriber.

REPLY.—Brown Swiss cattle, the breed to which you refer, are hardy, useful animals, good enough in both milk and flesh production to be valuable dual purpose. The principal objection to Brown Swiss cattle is the fact that there are not many herds in this country and that it might be difficult or expensive to secure suitable bulls or foundation stock. If, however, you know where you can buy at reasonable prices and of a good reliable man such animals as you need, there is no reason why you should not start with Brown Swiss cattle if you like them. One of the chief arguments in favor of selecting a more common breed is the fact that there are so many more herds from which additional animals can be bought.

784—JACK MASTURBATES—Does it hurt a young jack to masturbate the same as a horse? If so, how do you prevent it? How many mares can a three and a half year old jack serve and not hurt him?—Missouri Subscriber.

REPLY.—It is just as injurious for a jack to masturbate as it is for a stallion. A new appliance will soon be on the market for masturbation. It it now being tried out with good success. If your jack is masturbating you cannot breed many mares to him successfully. A normal jack of this age should make from three to five services a week, no two services closer than 24 hours.

785—TUMOR—Just bred a mare today (Feb. 18), and she had a hard growth on one side of her womb (mouth) about three-quarter inches in diameter. I cleaned her and washed the stallion after service. What is wrong? Will she become pregnant? Did I do right to breed her?—Ohio Subscriber.

REPLY.—It is quite likely the growth referred to is the nature of a tumor and may or may not have an influence on the mare conceiving. So much depends on the character of the growth, the parts involved, etc. It is not likely that any harm will come to either mare or stallion through breeding. You would increase her chances of conceiving by using a capsule. This mare should be examined by a competent veterinarian with a view of removing the growth.

786—BREEDING OUT OF HEAT—Will you kindly tell me if a mare has to be in heat to be bred with a capsule?—Montana Subscriber.

REPLY.—The best time to breed all mares, regardless of condition, is about two days after they go out of heat, with a capsule. This is more especially true with mares having an abnormal condition of the cervix. No attempt should be made to breed a mare with the natural service unless she is in good heat.

787—PROLIFIC MARES—Are Percheron mares as prolific as the long bodied mares such as Hambletonians and other mares for breeding?—Texas Subscriber.

REPLY.—There should be very little difference between a draft mare and the roadster when properly cared for. Those mares which are used for all purposes are more liable to be used at hazardous occupations. The continual change from one work to another is a disadvantage, more especially for those mares which are used for saddle purposes and driven at night and allowed to stand without shelter during all kinds of weather. In your section mares have more difficulty in receiving enough nutrition on bunch grass. A big horse cannot graze as efficiently as a smaller one.

788—WEAK FOAL—We have a mare on our farm that is very easy to get with foal. The colt shows alive until foaling time and then comes dead. She is an eleventh month mare. She gets down in a single stall within a month of foaling. What shall I do with her?—Michigan Subscriber.

REPLY.—Some mares do not have the power of transmitting strength and vigor to their offspring, even when given the best of care. If this mare has had misfortunes in this direction several times and you have kept her in moderate flesh, and have given her moderate work or exercise, you should discontinue breeding her in the future.

789—BRUISE—I have a valuable mare that has been itchy and she has been rubbing in the stable and has bruised one of her shoulders high up in front of her withers, or shoulder blade. I have been blistering. What have you to say about it?—Ohio Subscriber.

REPLY.—Your inquiry is of a very indefinite character, but we would infer that your mare has bruised the region of the withers and that an abscess is forming. It is quite likely that you will need the services of a veterinarian in order to make a proper diagnosis and effect a cure.

790—ENLARGEMENT ON PENIS—Last fall I had a stallion to get his penis cut on a wire fence. It swelled up and got real sore. I have it healed up nicely now, but there is a hard lump as large as my fist under the skin. It is not a bit sore. Could I absorb this lump with iodine of potash and lard?—Indiana Subscriber.

REPLY.—Such enlargements are difficult to remove, but we would suggest that you practice daily massage on the parts—that is, that you carefully rub and knead the enlargement so as to soften it up. After each kneading apply a three per cent tincture of iodine solution to the part. You will have to be patient and continue the attention for some time in order to obtain results.

791—LAME JACK—I have a jack that is lame in the right fore leg; doesn't eat well and looks badly. Have examined his foot but can find nothing the matter with it. His leg isn't swollen anywhere so cannot locate exactly where the lameness is. Another jack in this neighborhood died that was affected similarly and no one seemed to know what was the matter. Please tell me what to do for him as he seems to get worse all the time.—Oklahoma Subscriber.

REPLY.—You should have your jack examined by a good veterinarian as the description given is very meager and gives us no basis upon which to make a diagnosis. The matter of rheumatism should be given careful consideration.

792—WEAK IN HIND QUARTERS—A friend of mine has a mare that is weak in the hind quarters. She walks as though she would fall down any minute and when it is a little slick her hind feet slip right from under her, but it does not seem to hurt her. She raises a colt every year and is in foal now. Work does not tire her more than any other horse; seems in good spirits. Would like to know what is the matter and what can be done for her.—Iowa Subscriber.

REPLY.—It is quite likely that the mare has suffered some injury or disease of the spinal cord causing a par-



Missouri Registered Mammoth Jacks and Jennets

FOR SALE AT ALL TIMES.

As fine a bunch as can be found on one farm. Guaranteed as represented. Prices right. Come and see them.

J. T. WATSON, New London, Ralls County, Mo.

40--Big Black Jacks and Jennets--40



Come to one of the oldest jack farms in Missouri. I make a specialty of breeding the big kind; extra big bone; big bodies. My barns are full of big young ones from 2 to 6 years old; 15 to 16½ hands.

ED BOEN, LAWSON, MO.

(Lawson is located 38 miles northeast of Kansas City on the C., M. & St. P. Ry., also 40 miles southeast of St. Joseph on A., T. & S. F. Ry.)

DEIERLING & OTTO'S
MAMMOTH JACKS AND JENNETS



40 head big, black Mammoth jacks, 25 jennets—the big, wide-out, 15 to 16 hands kind; from yearlings to 6 years old. Mostly two's and three's of our own breaking. Black with white points; heavy boned and good, including our 1913 prize winners.

We have a splendid lot of young jacks, jennets, Percherons, Saddle, Coach and Trotting horses to trade. Correspondence and inspection invited.

DEIERLING & OTTO, Queen City, Mo.
Main line Wabash—St. Louis-Des Moines Line.

Fine Kentucky Jacks For Sale



Will be in Hiawatha, Kas., about March 6th with a car load of fine Kentucky jacks for sale privately. Anyone wanting a jack call and see our stock.

Also have 40 head of jacks and jennets at our home, **Poplar Plains, Ky.**, for sale privately. Ages from one to four years. **SAUNDERS & MAGGARD.**

SOME EXTRA GOOD JACKS AND JENNETS.

For sale, as good as they grow them anywhere. Some of these jacks will mature into 1200 and 1300 pound jacks, with as good a bone, body, style and finish as you see anywhere. Ages from 8 months to 8 years old. If you want a good young jack or jennet at a reasonable price, write or come and see them. **HENRY OBERMANN, Freistatt, Lawrence County, Missouri.**
27 miles north of Monett, on Frisco Ry., and 6 miles southwest of Hoberg on Missouri Pacific.

JACKS



Kentucky Bluegrass bred and raised; the foundation of all other states. Old Honesty has the blood lines of all who have made success and fame in the jack business. Write your wants or come to my barn at Greendale. Electric line right at door. Stop 10.

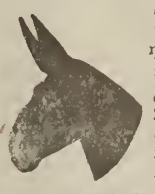
S. C. NUNNELLEY, Lexington, Ky. Route 6.

8--MAMMOTH JACKS--8

For Sale—from 3 to 5 years old; 14¾ to 16¼ hands standard measure; good breeding; broke right. Also a few jennets. One black imported 7-year-old Percheron stallion. Priced to sell. Stock in town.

L. W. HOYT, BARRY, Pike County, ILLINOIS.

KENTUCKY JACK AND PERCHERON FARMS.



Two hundred head of big bone Kentucky, Mammoth jacks, saddle stallions, mares, colts and fillies. The jacks and saddlers you want are here. 2500 bushels of blue grass seed. Our prices and terms will suit you. Write us your wants or visit our farms.

COOK & BROWN, Proprietors, LEXINGTON, KY.

To you is made the special subscription offer on back page.

"WE HAVE WHAT WE ADVERTISE"
For Sale.



15 head of big black jacks; 3 to 6 years old; 14½ to 16 hands. Big bone, heads. The right kind.
Also some draft and saddle stallions. All priced to sell.
MILTON GUSTIN, Edgerton, Mo.

25 JACKS AND JENNETS 25

For sale. I am pricing to sell. I have them from colts up. I have lately added several good ones, and now have some of the best I have owned.
R. M. JOHNSON,
Bolivar, Missouri.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address
J. C. HUCKSTEP,
Eolia, Pike County, Mo.

FIVE JACKS

For sale. All blacks with white points; two 2-year-olds, one 3-year-old jennet jack and two 8-year-olds. Will sell at a bargain.
HENRY KERSTING & SONS.
Gilmore, St. Charles County, Mo.



JACKS.
20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.
Phil Walker, Moline, Elk County, Kas.

WANTED An Extra Good Jack

The wide, thick kind; 4 or 5 years old. Full particulars first letter.
I have some of the best young Percheron stallions in the state for sale, or would exchange.
J. D. DETAR, Spring Hill, Kansas

4 MAMMOTH JACKS
AND 2 JENNETS FOR SALE.

Jacks are 1 to 6 years old. Jennets are 6 years and in foal. They are priced to sell quick.
WM. GROTHE, Flint Hill, Mo.

tial paralysis of the hind limbs, and if a case of very long standing is incurable.

793—ENLARGEMENT—One of my mares has a hard lump on inside of hind foot, one inch from hoof, hard as a bone and as large as a walnut. She don't mind it. What can I do to remore it?—Washington Subscriber.

REPLY.—Much depends on the length of time the enlargement has been there as to whether or not it can be removed. It is quite likely, however, if it is hard as you suggest it will remain in spite of treatment. If it does not cause lameness it will do no harm beyond presenting the appearance of a blemish. Apply the following to the enlargement every two weeks: Biniodide of mercury, one dram; lard, two ounces. Rub in well with the finger and at the end of 24 hours wash the parts off with warm water and soap and when dry apply a little fresh lard.

794—THREATENED ABORTION—One party here has a mare that made quite a little bag about four or five months before foaling time. She was not off in feed and seemed all right. Some milk dripped. This occurred after having been worked to plow breaking land where there was corn ridges the year before, and the ground was slippery when it was thawing. He thinks the slipping and jerking must have caused her to abort and that the dead foal is still in her. What is your opinion—Kentucky Subscriber.

REPLY.—If the mare really aborted the dead foetus is not in her. There is no doubt but what she has presented symptoms of abortion, but even at four or five months one would think your friend would have noted other symptoms. As long as she is thriving and showing good health she should not be disturbed until foaling time. At that time you can determine the question definitely even if a manual examination needs to be made by a competent veterinarian.

RAISING YOUNG JACKS.

Jennets for breeding purposes usually do better when only a few are allowed to run together. They may run with other stock, but do not fare so well with horses or mules. A jennet during pregnancy should be reasonably well fed. The feed should be of a slightly laxative nature; plenty of roughness, consisting of part alfalfa or clover, or pea hay should be had. At time of foaling the jennet should be placed in a clean stall to prevent the colt from dying of navel ill. If the time of delivery is during warm weather she may be allowed the use of a pasture without any straw stacks or manure piles.

One failing of these animals is to select a place where infection is likely to be present. In a case of this kind the colt is liable to contract navel ill. The navel cord should be watched and a drying powder used immediately after birth, as navel infection is very prevalent among jack stock colts. During the nursing period the jennets should be well fed. The feed should produce an abundance of milk. A little grain in addition to good pasture is usually a necessity, and profitable.

If the colt is a jack colt it should be fed a little grain as soon as it will eat, and be halter broke early, so that the weaning process will be easy. If a mare and a filly colt could run with the jennet and her colt for a few weeks before weaning time, the process would be more easy. The jack colt should be weaned at 6 or 7 months of age. He should be separated at any rate before he has a desire to ride his mother. This may occur before the seventh month. At weaning time the jack colt and the filly colt can be placed in an enclosure together. The filly colt should be of a timid nature so that the jack may be the boss. These two colts should be kept together until the jack colt is 12 or 15 months of age, then they may be separated by a partition, as the jack will probably get too rough. He should be separated at any rate before he is old enough to make a service. If a jack colt makes a service loose he is liable to want to make other services the same way.

The most important thing in training a jack is never to allow him to see or smell a jennet, mule or jack, or at any time to be allowed to smell where one of these animals has been until he is well broken to serve mares. Some jacks can be ruined after they are 5 years of age by making services on jennets. Nothing is quite so disgusting as to have a slow jack. If these rules are closely observed, there should be little difficulty in this direction. Many breeders use their aged jacks on jennets after the breeding season is over. It has been learned that some aged jacks will be very slow after serving jennets during the season. By the use of the capsule system or the impregnator, it is not necessary that any chances be taken with the natural service. Artificial breeding, when properly done, is even surer with jennets than with mares. The degree of "heat" with these females is usually excessive; if they are not served this is not so much stimulated.

In order to have a salable jack, he must be large. In order to reach a satisfactory size, plenty of feed must be given from birth. Good oats and hay of a laxative nature are a necessity. As the age increases more roughness should be fed. Jacks and mules require more roughness than horses of a similar size. A part of the ration should be alfalfa or good clover properly cured, without any mold or dust. A few extra dollars invested in the right kind of feed will be well spent. If alfalfa or clover cannot be had, a part of the grain ration should be bran, and a good supply of carrots is a benefit. Every jack breeder would do well to have a patch of carrots especially for use in the winter time.

Every jack should have a paddock and a place to roll. This should be spaded up and kept soft, which will encourage him to roll frequently. He should have a stall in the north side of the paddock, where the door is left open at all times. By starting with a young jack in this manner, there will not be much worry about his health or general condition. The fumes from a closely built stall, without fresh air, are very injurious and have much to do with the so-called jack sores.

REGISTERING JACKS.

An effort is being made to increase the size and improve the conformation of American jacks. The Standard Jack and Jennet Registry of America is the largest and best record association for jacks in the world. The rules are sufficiently lenient at the present time to secure the registration of desirable foundation stock, but will be tightened up rapidly from this on. Jacks measuring 58 inches from the highest central point of the withers to the ground; 62 inches around the heart girth and seven inches around the front leg at the smallest place between the knee and the ankle, can be registered. Jennets measuring 56 inches from the highest central part of the withers to the ground; 60 inches around the heart girth, and six and three-quarter inches around the front leg, may be registered.

These measures may seem small, but it is surprising how many animals have been rejected owing to these measurements. An animal may be large in one or two measurements, yet fall short in another one. The object is to bring up the average. If an animal meets only part of these requirements, it would not signify much, but the meeting of all of these measurements by the stock registered is very important. It cuts out all those that have pronounced weaknesses. There are other requirements, but these are the principal ones at the present time.

Our advice to every owner of jacks and jennets that will fill these measurements is to send for application blanks and have them registered immediately. A new ruling will go into effect June 1 which will bar many animals now eligible. Then a lot more animals will be barred from ever being registered. If a registry association is to be of any service it must keep raising its standard. A word to the wise should be sufficient. This record association is recognized by the National Association of Stallion Registration Boards.

A lot of breeders will pay no attention to these statements and in the future will have stock which cannot be registered. This association will not stand wide open for twenty-five years requiring only a certain height and color, as another association has done. The object of the Standard record is to improve the jack stock; not to create a fad or a monopoly.

The officers of this association include most of the leading jack breeders in America. These forty officers, representing all sections of the United States, actually own more live animals today than are registered in any other jack registry in the world. Jack and jennet buyers are going to demand registered stock. The reason for this is simple. All other impor-



JACKS AND JENNETS.
Thirty-five head of Mammoth jacks and jennets for private sale. Jacks in age from 1 to 5 years old; in size up to 16 hands. These jacks are all good ones, black with white points. I have one of the best herds of jennets in Kentucky. I raise all of my own stock and will sell them worth the money Write for prices today, or better, come and see them.
U. G. SAUNDERS, Flemingsburg, Ky.



JACKS.
The kind all are looking for; large boned, black Mammoth Tennessee and Kentucky jacks; 2 to 6 years old; guaranteed and priced to sell; all broken and prompt servers. Reference, banks of Lawrence, 40 miles west of Kansas City, on U. P. and Santa Fe.
AL. E. SMITH, Lawrence, Kans.

$400 EACH
On 18 Months' Time.



Purchaser to keep animal insured. Two good jacks, 2 years old; black, white points; broken; registered; sired by Gov. Foster 1716; a 1,250 pound jack.
E. E. LAUGHLIN, FOSTER, BATES COUNTY, MO.
(Postoffice, Rich Hill.)

JACKS AND MULES.



Eighteen jack and mule farms under one management, where can be seen 380 head of fine large jacks, pennets and mules, 14 to 17 hands high. Good ones. Stock guaranteed.
Write for prices today.
KREKLER'S JACK FARM,
WEST ELKTON, O.
Branch Barns, Clinton, Indiana.

Jack For Sale

Choice Mammoth jack; weight 1150; height 15.3 standard; good performer; sure breeder; eight years old. One 3 years; 8 months; good performer. Will be as large as the other one. Will sell either one. Both smooth and good looking. Any one wanting the best. better see them.
A. CALENDER, New Lyme Station, O.

MAMMOTH JACKS AND JENNETS.
Our specialty is herd headers. Have them as good as grow. 48 years a breeding stable, have succeeded because we use the best that money will buy. Satisfaction guaranteed.
G. M. SCOTT,
Rea, Andrew County, R. F. D. 2, Mo.

I HAVE THREE JACKS
and need only one. They are strictly good and O. K., and you can have your choice. I'll have a mighty good jack left after two have been picked out. Come and See. LEW JONES, Alma, Wabaunsee County, Kans.

THREE JACKS FOR SALE—From 3 to 5 years old; about 15¼ hands high; large, heavy bone and registered. All black with white points. Price reasonable if sold soon. Address S. A. FARNSWORTH. BLAIRSTOWN, MO.

For Sale or Trade

Five-year-old black jack; 15 hands; sound and a good breeder. Take good jennet or driving mare or gelding (saddler preferred) as part pay. Give full description first letter.
JOE S. COLLINGS,
Russellville, Ind.

LEAVENWORTH COUNTY JACK FARM.
Established 1882. 25 head of Mammoth jacks and jennets. Write for prices.
CORSON BROS., Potter, Kansas.
On Santa Fe Ry.

JACKS FOR SALE.
Seven Tennessee jacks; good ones; black, with white points; weight, bone and style; two to six years old; 15 to 16 hands high. Write me.
A. G. BUSH, Fairland, Okla.

TWO JACKS
For sale. Five and 6 years old last July; 15¾ and 16¾ hands high; weight 900 and 1,200 pounds. Cash $1,000 each. No trades.
LOUIS KOENIG, Solomon, Kans.

ant live stock have record associa-ions, and the public is being taught o expect good stock to be registered. Anyone owning jack stock cannot fford to overlook this fact. Registra-ion costs the small price of $2.00 er head for non-members, and $1.00 er head for members. A member-hip costs $10.00.

This association is owned and con-rolled exclusively by the jack breed-rs. Every officer, except the secre-ary, is actually engaged in breeding acks and jennets. The editor of this aper started this record association, nd spent four years of hard work nd a lot of money for the benefit of he jack breeders. He has not re-eived any compensation for his ef-orts, neither is he asking any. Every ublic-spirited man interested in the evelopment of our live stock should n the same way perform his duties. The conduct of this association will ome day be a model for other rec-rds. Hundreds and hundreds of ani-nals have been rejected because they o not meet the requirements.

A few days ago a man bought a mall jennet that had happened to roduce a fair jack which he wanted o register. He went to the secre-ary's office and asked him what ould be the chance of getting the ennet registered. He was informed hat he did not have money enough o get a single rule broken in that ssociation. This is the kind of nanagement we want connected with ur record associations. It means im-rovement and confidence. For ap-lication blanks and any information ddress Wm. E. Morton, Secretary, 20 Scarritt Building, Kansas City, Mo.

THAT WESTERN BRAND.

The western brand inquired about in uestion No. 651 some time ago by a Missouri subscriber, who described it s a figure two (2) on the left hind uarter of some range, bred horses which he saw, has been reported on s follows by S. Sibley of Dickinson, North Dakota:

"The man that owns that brand lives n Bottineau County, No. Dak. His ame is Joseph McKinney. He uses he same brand on both cattle and orses on the left hip of each."

BRED 300 MARES FROM ONE JACK.

To the American Breeder:—I was in opes I could come to Kansas City this ast term of the Breeding School, but don't think I can as the breeding sea-on is commencing now. We had a ig business last year; bred over 300 nares on our jack with good results. We have now three good jacks, the weepstakes jack at Hutchison, Kas., nd a three year old, first in his class.

We have a good opening for the ight kind of a man to handle a jack. We could get him as many mares as e could handle, or 300, we are prom-sed. The locality is about 20 miles rom us, so could not handle the busi-ess. We could spare one of our acks and furnish the stand, or mares, nd turn it over to the right kind of nan.

It is cold this A. M. but some of our armers have sown oats; good deal of farming being done. John Thralls, Caddo County, Okla.

A NEARLY SURE WAY TO SATIS-FACTION.

To the American Breeder:—Am I satisfied, well, I should say so! I may never use an ad again but if I do I know who to come to. I turned he stallion in gentle yesterday; will turn in the other horses I took while here, next Tuesday, and will be in Kansas City for the March term of the Breeding School. I hope to re-ceive some offer soon after school is completed that I can accept, as I do not want to start training any horses in Buckner and then have to leave them to go somewhere else. Elliott S. Humphrey, Kings County, N. Y.

CAPSULE BREEDING RESULTS

Last August a number of representative breeders using the capsule system were asked how many colts they had produced from a single service. We have selected from this number 70 breeders from 15 different states. Some of the reports were much better, some of them not so good. This number is about an average. We are printing this information to show the possibilities of capsule breeding. We are giving the names and addresses so that any doubtful reader can visit any of these men and see the colts and verify these statements. Do not write these men, but go and talk to the mare owners who raised these colts. If this number of breeders is not sufficient, we can furnish hundreds of additional successful capsule breeders. A successful capsule breeder can be found in nearly every section of the United States. The colts produced in the column below are from one service.

Name and Address of Breeder—	No. of colts produced from one service.	No. of mares capsuled from this one service.
F. J. Goodrich, Scottsville, Kans	6	9
David McCullough, Deering, N. Dak	6	12
Chris J. Weiterer, Prairie View, Ark	3	5
H. P. Wicklein, Evansville, Ill	6	6
Geo. F. Lucore, Arriba, Colo	3	4
N. A. Davis, Pittsburg, Tex	4	5
J. F. Sperry, Walsenburg, Colo	4	7
H. C. Wornom, Mayfield, Kans	3	5
Harvey Markham, Washington, Kans	5	8
Thomas McDonald, Amorita, Okla	6	7
N. S. Cox, Pattonsburg, Mo	6	10
Wm. Hartman, Baring, Mo	4	5
J. T. Taylor, Foley, Mo	6	7
F. U. Williams, Charlott, Ia	5	7
A. V. Durr, Edgerton, Ohio	4	7
H. L. VanOrnum, Farman, N. Dak	3	5
J. S. Leamer, Polo, Mo	3	4
W. M. Tidyman, White, Nebr	4	7
M. E. King, Potwin, Kans	4	4
W. H. Hager, Bluff City, Kans	3	5
Fred Oetinger, Green, Kans	3	4
Frank D. Fruin, Gilman, Ill	3	5
J. H. Moormann, Solomon, Kas	3	4
Julus Labantschnig, New Douglas, Ill	7	8
B. A. Christmas, Eunice, N. Mex	5	10
J. W. Shannon, Hale, Mo	3	5
Leon Le Claire, Willow Lake, S. Dak	6	10
Jacob Maurer, Cimarron, Colo	6	7
Ira E. Ondler, Coggon, Iowa	4	6
S. P. Clemens, Norborne, Mo	3	5
J. C. Dunn, Dalton, Nebr	4	6
Hays Bealmear, Dodge City, Kans	7	8
Lester Beveridge, Kanorado, Kans	5	7
E. P. Ferris, Haskins, Ohio	4	8
W. P. Smith, Apache, Okla	6	14
Alfred Bashen, Bowen, Ill	4	10
L. M. Tuck, Morrisville, Mo	4	5
J. A. Swearinger, Breckenridge, Okla	3	4
S. C. Marshall, Overbrook, Kans	5	6
Edw. Springer, Oaklandon, Ind	4	7
T. M. Allinder, Conway, Ark	8	13
W. E. Griffith, Nodaway, Iowa	6	8
James Ratliff, Panama, Nebr	4	6
H. N. Highfill, Paragould, Ark	4	8
C. C. Painter, Stronghurst, Ill	4	5
John N. Turner, Earlsboro, Okla	3	4
Joseph Ferguson, Mt. Vernon, Ohio	7	8
F. J. Greer, King City, Calif	3	5
W. T. Campbell, Elsmore, Kans	3	4
Carl O. Williams, Kempton, Ind	5	9
G. W. Murray, Mitchell, Ind	8	12
E. E. Hall, Kincaid, Kans	5	6
John T. Barr, Westmoreland, Kans	4	6
Roy E. Graham, Whiteland, Ind	8	13
C. H. Zachry, Merna, Nebr	7	18
Sam R. Leath, El Paso, Tex	6	8
J. W. Pugh, Woodburn, Ky	4	4
Lon Gimple, Mankato, Kans	8	10
J. H. Motley, New Hartford, Mo	4	4
Kidd Brothers, Wakarusa, Kans	5	7
Lew Jones, Alma, Kans	7	9
J. A. Hart, Kirklin, Ind	6	10
C. L. Crabtree, Laverne, Okla	8	9
Emile A. Bachand, Palco, Kans	5	9
S. S. Mouse, La Cygne, Kans	4	5
J. G. Arbuthnot, Cuba, Kans	4	7
L. R. Lee, Roodhouse, Ill	3	4
C. A. Randolph, Fowler, Ind	5	7
Nels. A. Anderson, Farragut, Ia	5	6
T. H. Terry, Bavaria, Kans	8	9

Stallion For Service

Council Chimes 2:07½; pure bred license No. 1769.

A demonstrated speed sire; sire of Minnie Chimes 2:04½, and many others in standard time. Liberal terms on application. Write for pedigree and information.

I have a good French draft stallion and a big grey jack for sale.

DR. D. H. BIBENS, Larned, Kans.

Standard Bred Stallion

For sale or trade on good ton draft horse or good jack. Six years old this spring; extra good individual; sound and a sure breeder; weight 1,450. He is by Lord Gregory and his dam by Pactoulous. Qualified "Scientific Breeder" wanted. **M. W. SELLS, Randolph, Iowa.**

STANDARD BRED STALLION

FOR SALE—Sorrel, 16 hands; weight, 1150 pounds; heavy bone; colts to show. For further particulars, write,

CHAS. L. McKEE,

Box 87 Salem, Ill.

FOR SALE AT A BARGAIN.

A pacing colt; 3 years old last July; sired by Symboleer, 2:08¼; his dam is Trilby, record of 2:18. This colt weighs 1050 pounds and is a smooth traveler. Has not been trained, but is broke single and double.

J. H. MOORMANN, Solomon, Kans.

BROWN STANDARD TROTTING STALLION.

No. 56573; coming 3 years old; sound; weight 1130. Kind in all harness. A trim, smooth fellow.

A. K. CHANDLER, Kellerton, Iowa.

Cleveland Bay Stallion

for sale. Captain 1243; foaled April 19, 1911. For further information, address

F. H. PRATT, Enid, Okla. Rte. 7.

Imported French Coach Stallion

For sale. Franc Tireau 4258; foaled March 28, 1905. Bred by M. Ferdinand, Paris, France. Address,

R. C. EPPERSON, - - Callao, Mo.

TWO STALLIONS—ONE JACK

For sale. One imported German Coach; dark bay; weighs 1500; coming 10 years old; an extra breeder. One black three-quarter Percheron, one-quarter German Coach; weighs 1400; coming 4 years old; will make 1600 pound horse. One registered black jack, white points; 10 years old; 15 hands high; extra heavy bone and good breeder. Price $1,000 for three. Am going out of the business.

H. H. SANDERS, Spring Valley, Ark.
(15 Miles East of Springdale.)

SHETLAND STALLION

to exchange. Black; coming one year old, that I would like to exchange for another stallion, same color, two years old. For particulars, write

JOHN M. MISCHKE,
Crofton, Knox County, Neb. Route 3.

EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Ponies for sale. **W. H. Fulcomer, Belleville, Republic County, Kansas.**

SHETLAND STALLIONS.

To lease, for season of 1914. Spotted and solid colors. Mares, colts and geldings for sale.

GEO. H. SIMPSON, Wheaton, Ill.
25 miles west of Chicago.

SADDLERS FOR SALE.

Registered stallions and mares; all ages. Also a few Hereford bulls.

H. A. GREENWELL,. Lakenan, Mo.

SADDLE STALLIONS

For sale. Jim Patterson 4000; 4 years old; Sam Mede 5376, 2 years. Both are sired by Chester Mede 1676; he by Chester Dere 10; dam, Sallie F. 2865; she by Quarry Denmark 1337; he by Kentucky Denmark 300. They have been taken good care of and are well developed. We are going out of business and will price these horses worth the money.

CRAIG BROS., Pittsville, Mo.

To you is made the special subscription offer on back page.

Breaking A Saddle Horse

To the American Breeder:—The gaiting and mannering of a saddle horse should begin rather early, about two years old. Our method is to first put a breaking harness on them and drive them for a few times with the harness tied up. Then hitch them to a rather heavy long shaft cart, which being strong and stiff gives the colt the first intimation that he cannot have his own way. After a few attempts to throw himself or run away, he usually decides to behave and go straight ahead, which is a very important lesson. Do not use a severe bit and try to keep from making his mouth sore.

As soon as he learns to go quietly in the harness, teach him to trot, just a short distance first, as fast as he can every time he is hitched. If he mixes, stop and start over. A dozen lessons of this kind will establish him in a trot that he will never forget.

If he paces or wants to rack to start with, put heavy shoes on in front and drive him in the mud or a sandy road. This will usually start him to trotting. The next thing is to ride him. Don't put a heavy saddle on him and cinch it up as you would on a broncho, but put a snaffle bit on with a lead rein and have some one give you a foot up and get on as quietly as you can bareback. He may jump stiff legged a few times, but will seldom make much of a fight. Lead him around the lot a few times, then take the lead rein up and ride him alone until he is a little bit tired. Put the saddle on, not too tight, and you will find that he will not resent it.

After riding him until he is bridle wise, always letting him go his own gait, providing he does not go too fast, put on a pair of spurs and carry a whip, letting him know what they are for. Do not be cruel but let him understand at the start to get away from the spurs and whip and not sulk or kick after he once learns their use You will seldom need them.

To teach him to rack, use a light curb bit with a leather curb and take him on a road slightly sloping. Start him down hill, hold his head up and spur him. Don't pull steady, but slack, first one rein and then the other. He will soon begin to mix and very soon will be racking. Do not keep him at it too long, and above all things don't try to make speed too fast. This is the cause of most bad gaited horses. A regular even level racking horse makes music with his feet and a rocking chair of his back, and is a beautiful sight to the bystander and a joy to his rider. Don't keep at it too long, as the racking is more wearing than the trot.

To teach him to canter, take his head up sharply, lean forward in the saddle and spur him. He may try to run. Don't stop him suddenly but gradually bring him down to the speed desired. If he is headstrong and wants to gallop or go too high, ride him uphill and you will soon have him going as slowly as you want. He will learn to start in the canter when you lean forward in the saddle and touch him with your heels.

The running walk is taught in the following manner: Let the colt get tired and then start for home. Give him his head and urge him with the heels, and if he breaks into a trot, jerk his head up gently and he will soon learn what you want. On the other hand, the stepping pace, or slow gait, should be taught when you first bring him out—when he is fresh. Touch him lightly with the spurs and hold his head up. He will soon get the step. I like to have my horses go the slow gait with their heads free. No bridle ever can add beauty to the head of a real saddle horse. Never strike a horse any place except around the fore legs, and very little of that.

We use an English saddle and a double bit rig with a martingale on the snaffle reins for training. But I like to ride with the curb only, after the horse has been thoroughly gaited. And I want to say that there can be nothing more delightful than an hour or two's ride on a sensible, spirited, gaited saddle horse.—Louis A. Osborne, Pettis County, Mo.

WANTS MORE SADDLE HORSE MATTER.

To the American Breeder:—I am glad to hear your subscribers writing to help others. The article, "How Farm Animals are Graded Up." also "Sweet Clover Information," etc., are very good. Your question and answer column is the best thing you could do for your subscribers and is a valuable department.

Why wouldn't it be a valuable step for you to specialize in a part of your paper on the American Saddle Horse? It would widen your subscription list and get you many ads, as the saddle horse is very much in demand now and is selling higher than ever before. Sometime in the near future I will write you a short article on saddle horses if you desire it. This is my real profession. Trevor H. Moore, Cooper County, Mo.

We hope other of our readers who are interested in saddle horses will follow Mr. Moore's lead and write about this admirable breed.—Editor.

BREEDERS' HITCHRACK.

Every man that owns a stallion or a jack for public service should immediately arrange his fence and his hitchrack so that every mare coming to his place to be bred would be compelled to stop at a particular hitchrack. This hitchrack should be situated in such a way that the sun would shine on the ground around it as much as possible during the entire day.

Practically every farmer in that district will visit that breeders place some time during the breeding season. If there are any infectious diseases in that community it is liable to find its way to this breeders barn. If all the horses and mares are forced to stop at a particular hitchrack before they are brought into close proximity to the breeding stock and other stock and allowing the breeder to make an examination, there will be much less danger of infection.

The fence and the hitchrack can be so constructed that visitors will be compelled to leave their stock at this particular place until they are examined. It is not uncommon to see horses come to a place of this kind with the distemper, influenza and other diseases. If the place is contaminated all the stock in the community that visits that place are liable to be sick if this precaution is not taken. By having the hitchrack situated in a suitable location the germs are soon destroyed. The sun is the greatest germ destroyer we have and it is very cheap. In case of prolonged cloudy weather the hitchrack and ground can be sprayed thoroughly with a good germicide. This is one of the most profitable things that any breeder can do. In addition to securing the safety of his patrons mares it behooves every breeder to be very careful about the valuable sires during the breeding season. There are certain infectious diseases prevalent among horses, that if taken by stallions or jacks is liable to stop their productiveness for several weeks, at a very profitable time. Every breeder should interest himself in the subject of diagnosing horse diseases and especially the taking of temperature which will appear in later issues.

EXAMINE THE TEETH.

Mares presented for breeding that do not appear to be in the pink of condition should have their teeth investigated. The stallion or jack owner should take a careful look at such mares, if their teeth do not fit up good or if there should be a sharp place or any condition which prevents good mastication. The owner should be advised to have them attended to. If a resident veterinarian is not convenient the breeder can take the name and address of those needing this work and make a date with a dentist so that these men can be notified to be there at a particular time. Mares must have full benefit of all nutrition if they are expected to be good producers. The average mare owner pays little attention to the best methods of keeping his mares in a physical condition. Quite frequently good animals are allowed to have ailments that reach a chronic stage by not being familiar with these conditions. A little observation on the part of the breeder can frequently be of much service to the mare owner by telling him that a simple operation by a qualified man could practically restore the animal.

SERVING MARES.

The stallion should be thoroughly trained to come within a reasonable distance of the mare and then stop absolutely still and wait for a signal to mount. Any stallion can be handled in this manner by having the proper kind of a bridle on him. All rough serving stallions should be thoroughly broken of rushing habits, as it is not only dangerous but it drives trade away from the place.

A mare should show distinct signs of being in heat when being bred with the natural service. Every breeder depending on natural service alone should have a substantial pair of breeding hobbles. All mares which are likely to kick should wear hobbles during service. Good men and horses are too scarce to take the chances, but before the hobbles are used the stallion should be thoroughly broken to make the mount slowly, otherwise there is danger of injuring the mare with hobbles on. There are no stallions living that cannot be taught to make the service slowly if the bridle is severe enough. The first

The Astral King Stock Farm Sale
Jefferson City, Mo.
March 11th, 12th and 13th

15 brood mares, saddle bred. 10 standard bred brood mares. 15 head speed prospects. 15 head yearling and two year old saddle bred colts. 10 head of saddle stallions, and five standard bred stallions. 40 head, ready to use, saddle and harness horses including some that have won and others that will win in the show ring.

10 head jacks that are proven breeders. Five breeding jennets. 15 teams of three year old mules.

10 head of registered Hereford bulls.

Three draft stallions.

We always sell the season's winners. I will show you the largest number of coming Winners that you can find in any one barn in any state. Ask me to prove this statement when you come to the sale. Catalogue on request.



JAS. HOUCHIN,
Jefferson City, Mo.

THE MORGAN HORSE CLUB

Offers its services free, as a Bureau of Information, regarding Morgan horse matters, and as a Clearing Exchange, to bring together those who want to buy or sell Morgan horses.

In order to meet the demand for Morgan horses, which is steadily increasing, and which for some years has exceeded the supply, every owner of a Morgan mare should see that she is bred this spring to the best available Morgan stallion. This Club offers to help every breeder locate the Morgan stallions standing for service near his place.

If those who want to buy or sell Morgan horses will communicate with the secretary of the Club, he will endeavor, without charge, to bring these buyers and sellers together.

The 1914 Catalogue, blank forms of application for membership in the Club, Catechism on the Morgan horse, information about the Club's Futurity Stake for Morgan foals of 1914 and various other literature may be obtained by applying to C. C. STILLMAN, Secretary,
165 BROADWAY, NEW YORK CITY.

REGISTERED MORGANS.

My Morgans are large; 15 to 16 hands and 1050 to 1300 pounds; have clean, heavy bone and possess all of the style and endurance for which the breed is noted.

Having bought Headlight Morgan to head a selected stud of The Admiral mares, The Admiral is now for sale. He is 15¾ hands high; weight 1250 pounds, and is the greatest all-round horse I know. I have 200 of his get on the place; part of them for sale.
RICHARD SELLMAN, Rochelle, Texas.

MORGAN AND PERCHERON HORSES

for sale. One very handsome, large two-year-old bay Morgan stallion; two fine large yearling studs and one handsome very stylish, yearling bay filly. All recorded. Two good recorded yearling Percheron colts; one gray stud; one black filly. All guaranteed sound.
J. L. BUCHANAN, Sherodsville, Ohio

CHOICE MORGAN STALLION

For sale. 8 years old; chestnut sorrel; sound; good goer and a great breeder; has sired 4 crops of colts for us, and must change. **J. P. and M. H. MALONE, Chase, Kas.**

REGISTERED MORGANS, SHETLANDS AND PERCHERONS FOR SALE.

Morgans coal black; Blackhawk blood; mature 15½ hands; 1,200 pounds. Shetlands, part imported; some sired by David Harum. Morgan and Shetland stallions, mares and fillies from weanlings to mature ones. Priced from $60 up. Imported Percheron stallion; gray; 2,100 pounds; good individual and breeder. Price, $400. Please describe what you want in first letter.
E. F. BROWN, Derby, Iowa.

esson with a severe bridle should be carefully done. Do not let the horse get too much start during this first performance. After his mouth gets sore enough he will begin to realize that he is not the master of the situation.

GRAHAM SCIENTIFIC BREEDING SCHOOL.

The last term of this season is now going on with breeders in attendance from nearly half of the states in the Union. This school has been in operation five years, students from nearly every section of the United States have attended, also Canada, Mexico, Belgium, France, England and Scotland. It is a practical course for breeders. It lasts one week with day and night illustrated lectures and demonstrations with language that any breeder can understand. One of the important features is the dissecting of mares. Several mares representing different diseases and conditions are used for this work. An instructor is stationed at each mare. The first student is given his work on the first mare and so on down the line with other students following after. It is an advanced course for breeders of live stock only. It is not a veterinary college, but a new profession for breeders. The course has been brought about by post graduate veterinarians, female specialists and experienced breeders. A fortune has been spent in investigations. Just such subjects as the breeder should have are discussed. Every day consisting of 15 hours' work through the entire week is given continuous. Post graduate veterinarians do most of the lecturing. All equipments necessary for such a school is used. All kinds of valuable charts and other appliances are there. Every breeder gets practical work but the principal thing is teaching the students the big lesson of barren and diseased mares. This is especially necessary for those who are not using capsules. Every natural service must be made fruitful. The next term will be held in August to give breeders an opportunity to practice during the fall months and be ready for the next breeding season.

In addition to the regular horse breeding school several terms will be held for cattle and hog breeders with the same faculty. These dates will be announced later. This practical work made plain with illustrations and dissecting animals gets results. No other institution in the world in our opinion can deliver so much valuable information in such a short time. For further particulars, address the Graham Scientific Breeding School, 225 West 12th Street, Kansas City, Mo.—adv.

ENSILAGE TO HORSES WITH GOOD RESULTS.

To the American Breeder:—Enclosed please find payment for three years' subscription to your valuable paper. I consider it the best one of several that I take. I notice inquiries about feeding ensilage to horses. I have been feeding ensilage to horses for the past nine years with the best of results. I have not had a sick horse while feeding ensilage. They shed their coats earlier than those fed on dry feed alone and keep in good condition with much less grain. I consider it an ideal feed for brood mares as a part ration. I feed about half the amount the cows eat and they relish it greatly; if fed more than this amount they seem to tire of it. I am feeding ensilage now to a horse I paid $2,000 for, and would not hesitate to feed it to any horse, am very careful not to feed any that is mouldy. J. W. Ferguson, Delaware County, Ohio.

To you is made the special subscription offer on back page.

THE PREVENTION OF NAVEL ILL

Navel infection in the new born is far more frequent than is generally recognized by stockmen. The losses sustained yearly from the several diseases that may be contracted through the laceratel navel cord is something enormous. In fact, in some localities the disease this season appears to be unsually severe and we predict bitter disappointment and extensive financial loss for those who have not given this disease close study and taken advantage of those effective measures that will prevent the disorder.

The navel cord may be briefly said to be simply an avenue through which certain blood vessels pass from the foetus to the envelopes attached to the wall of the uterus, and it is through these vessels that the blood of the foetus passes in its particular round of circulation. In addition to these blood vessels there is a tube connecting with the bladder that permits of the escape of the urine of the foetus during its growth and development. During or at birth the cord is torn asunder, creating a wound with these open vessels exposed. Inasmuch as the foal lies down a great part of the time after birth the position it assumes gives a most excellent opportunity for infection to occur and of a very grave character for the reason that the organisms may gain immediate entrance to these several vessels. In the event the germs find their way into the tubes communicating with the bladder they would set up an inflammation of those parts and very likely would result in the foal persistently urinating through the navel. Nearly all cases that urinate in this way are infected and it is the infection that causes death of the colt and not the mere fact that the urine escapes at this point.

Probably the infection is more serious when it follows the course of the blood vessels mentioned, for the reason that unless these vessels become plugged with an impenetrable blood clot the infection will shortly reach the blood stream where it will have the opportunity of being promptly distributed to every part of the body through the medium of the blood.

The symptoms of such infection are a disinclination of the foal to nurse; it is stupid and dull, with stiffness of gait. The amount of fever present is governed by the severity of the infection. Frequently the navel is noticed to be swollen, glistening and excludes a watery substance or pus.

One can not judge the severity of the affection by the appearance of the navel for the reason the germs may penetrate deeply, in which instance more harm is done than where there is great local disturbance noticeable. It will be seen that when the germs have gained access to the blood stream that they have the opportunity to float to any part of the body. Seemingly they appear to affect the tissues in the neighborhood of the joints most, but may form abscesses in any part of the body.

Localizing about the joints the germs cause swelling of the parts resuling in sudden and great lameness. There is a tendency for the disease to shift from one joint to another, leading some to associate it with rheumatism. Occasionally the swelling at the joints will become so great that the tissues will give way and permit of a discharge of pus mixed with the joint oil. Such cases nearly always die. Navel disease is a very fatal malady, partly because it attacks young animals having little power of resistance and partly for the reason that the disease, almost before being observed, has reached those vital parts where it is beyond the reach of medicine.

Veterinarians as a rule do not welcome the treatment of these cases, for the reason that their very nature makes the majority of them hopeless from the start. Besides should skilled treatment save the life of a valuable colt there is always danger of its being permanently crippled for the reason that the surfaces of the joints become diseased in a manner so that they never fully recover.

There is only one way to successfully handle navel infection and that consists in its prevention. This paper has from time to time emphasized the importance of having mares foal in box stalls that have been made scrupulously clean and kept bedded with nice, bright straw. The infection is usually contracted within a few hours after birth while the cord is moist and every one who has observed the behavior of these cases has noted that the danger lessens as the cord becomes dry.

In undertaking to prescribe agents for the prevention of this trouble we have met with no end of complaints from our patrons.

First, there is the uncertainty of getting the proper drugs from the druggist. Only recently we were in a locality where navel ill was very prevalent and undertook to have a prescription filled for a powder suitable for this preventive treatment. We were informed by the druggist's clerk that they did not have all the ingredients in stock. The expense of the prescription to the owner would have been, according to the druggist's estimate, $1.20. Even at this expense the powder would have been delivered in an inconvenient and wasteful paper package, and possibly not thoroughly compounded. The very nature of preventive treatment demands that the remedy be always on hand and in shape for convenient and immediate use, and so perfectly prepared as to be effective.

In navel ill, as in most ailments where prevention is the only successful treatment, the time for prevention passes quickly and any one of the difficulties we have encountered in getting a remedy made up at local druggists is sufficient to delay or interfere with treatment until too late.

Seeking the way out of this difficulty in consultation with the best authorities, we have received a proposition from a manufacturing chemist to furnish the powder at wholesale rates, carefully compounded according to our prescription, and put up in serviceable metal containers, perforated like a pepper box for dusting it on. The price made, on condition that we guarantee the sale of a certain number of boxes (which guarantee we have given, knowing the widespread need of the remedy) to allow for the expense of handling this work and still deliver by mail, postpaid, to any address in the United States, one of these boxes at 50 cents, or less than half what the local druggist would have charged us for filling the prescription. The box will contain powder enough for the treatment of ten colts (or calves—the treatment being equally effective for either) and directions for its immediate convenient use will accompany each box.

With the powder put up in this way it should be a very simple matter to carefully strip the fluid from the cord with clean hands and thoroughly dust the cord with the powder. This treatment should not only destroy the germs but will dry up the cord, which is equally important. Here is a matter in which stallion owners can make a profitable campaign of education with their mare owners, and by pointing out to them the necessity of preventing the disease, rather than wasting valuable time trying to cure it, they will not only render an important service to the owners of the mares but will just as certainly make their own business better.

In giving this remedy to our readers (at less than it has cost us—con-

BARGAINS FOR SALE.

Three stallions; two jacks and our big feed and sales barn, including our breeding barn, stock pens, sheds and wagon yard; all included covers two acres of land, 200 feet from depot; 50 feet from railway loading pens. Our breeding stock as follows, to-wit:

One German Coach horse, imported, weight 1,400; two Denmark saddle horses, Rex L. 2229, sired by Rex McDonald; Captain Denmark 3199, sired by King D. 1527. Two black Tennessee jacks, 15 hands, 4 and 9 years old; heavy bone; quick to serve and sure breeders. Right in every way. A paying business. Breed 350 to 400 mares each year; books and colts to show. Will sell all or will sell stock and lease barn and property to suit purchaser. Stock free from blemish; safe and sound, and sure breeders. Priced to sell. We mean business.

SHOWMAN & McCLAREN,
Doniphan, Ripley County, Mo.

CLOSING OUT
AS I HAVE OTHER BUSINESS.

One registered Belgian stallion, 12 years old; has weighed over 2,000.

One registered saddle stallion; weight 1,260.

One 15-hand jack; extra heavy bone and feet and ears; with plenty of length and width. The jack is 12 years old and has never been crowded; is the surest jack I ever handled; good worker any kind of weather on mares; will work on jennets with mare for teaser.

Also one yearling jack, coming two, and three jennets; two jennets eight years old; one has raised four jacks, the other, three jacks and one jennet; the other jennet is three years old; one of these jennets will foal early, the other due in fall. All black with white points.

The above stock are all good breeders and sure. No trades.

O. T. KARR, Quitman, Mo.

BREEDING STOCK FOR SALE.

Imported Percheron stallion, Coco 58033 (62931); 8 years old; color bay-brown; weighing 2,000 in ordinary flesh, could be made to weigh 2,100. Certificate of soundness; 75 per cent breeder; lots of good colts to show. He is of fine proportion and fine action and for sale for no reason whatever; colts are in his way. Also a high grade Percheron stallion, coming 4 years old; black; weighing 1,850 pounds in common flesh, and as well made as you can find them. Certificate of soundness furnished. For sale for no cause; a sure breeder.

Also a large Mammoth jack; 15½ hands high; weight 1,125; good quality; sure foal getter and lots of good colts to show. Reason for selling, am going to quit the business. For prices, address, **Wm. Strohmeyer, Senaca, Kan., Route 4.**

Position Wanted.

By graduate of the Graham Scientific Breeding School. I am 30 years of age; have had plenty of experience in breeding and handling stallions and jacks. Can furnish best of references. Wages reasonable.

ALBERT RUDLOFF, Lynch, Nebr.

GRADE HORSES FOR SALE.

24 head of grade Percheron geldings and mares. About half of each kind; from 3 to 7 years old; weighing from 1,200 to 1,600 and over. These horses were all raised on my place, and are the cream of my bunch; very gentle; all have been handled and some well broke. If interested please come and see them, or write. **Andrew G. Johnson, P. O. Box 14, St. Joseph, N. D.** Nearest R. R. Station, Glen Ullin, Morton County, N. D., on the N. P. R. R.

BREEDING STOCK

For sale. Pure bred Percheron stallion, Marvin 54190; Standard bred stallion, King Barada C. 223; Mammoth jack, Carlso 20336.

Will sell the above stock under guarantee at a very low price if taken at once. Write me about these at once.

JOHN WEAVER, Moriah, Ill.

For Sale

One car load of good young mules, two and three years old; one car load of draft horses and mares.

R. G. DALTON, La Junta, Colo.

sidering the cost of our investigations), we must urge the one point that is vital to the success of all preventive treatment, namely, that it be kept on hands at all times and that it be used promptly and thoroughly according to directions.

Orders for the remedy (we will call it simply Navel Powder) should be sent direct to the American Breeder, accompanied by 50 cents in postoffice order, stamps or any convenient form, for each box of powder desired. The powder will be sent only to subscribers to the American Breeder.

BREEDING PURE BRED FEMALES.

The owners of pure bred females have not realized the great responsibility resting on them or there would not be so many inferior animals produced from this class of dams. The very individual who is proclaiming his friendship to the cause of better live stock may be injuring it without thinking.

The owner of the female absolutely has all of the power to select the sire with which she is mated. No one else can make this selection. Every man interested in live stock improvement who owns and controls these pure bred females should consider this question seriously. No other class of men has as much to do with the improvement of live stock as does the owners of the females. If they will show by their patronage the class of sires demanded, better individuals will be used.

In practically every breed of live stock there is a selection to be had. Just because an animal happens to be registered is not enough evidence that it should be used on pure bred dams. The quickest improvement to be had can come from the owners of these females if they will but demand the best in sires. It should go without saying that these men understand the value of feed—that the progeny should be developed—but unless an improvement also is made through the dams of this country, but slow progress can be expected. These men are the individuals who should understand the value of better blood and who should act.

BREEDING CRIPPLED MARES.

All crippled and "heavy" mares should be bred in the fall of the year, soon after the hot weather has passed. This will bring the foaling time of the crippled mare in the fall of the year, and not cause her to carry a heavy fetus through the winter and make it difficult for her to get around. It is usually all a crippled animal can do to skirmish for feed, without having an extra heavy body to interfere with her locomotion. Many horses are loose together during the fall and winter, and if the crippled mare is not active she is very liable to be kicked or hurt to the extent that abortion would occur. On the other hand, if a mare delivers a colt in the fall of the year, the owner will take her up and take good care of her because it will be profitable for him to do it.

Occasionally a "heavy" mare will fertilize during the spring season and carry the fetus to maturity, but many of them are fatigued during the hot weather to the extent that an abortion is the result. After one of these mares has lost a colt or two it is very difficult to get them to carry a colt to maturity, but if they are bred in the fall, and show to be in foal the following spring, the owner usually feels that it will be better to turn the mare out to pasture where, if she is not interfered with, she will probably carry the colt to maturity.

There are a lot of crippled and "heavy" mares bred every spring from two to three times that get absolutely no results whatever. These same mares can be put off and bred in the fall with good results. Some of them will need treatment. They should be treated with the iodine treatment and turned out to grass, and bred in the fall.

DECORATING DRAFT SHOW HORSES

A breeder of excellent draft horses recently expressed a desire to exhibit some of his product in a leading show. His first question was, "Where can I get an experienced decorator—one who is an expert?" He further stated that he did not care to show his horses unless they could be decorated equally as well as the other horses shown in the same class. Much of the decorating, as we have it done at our leading draft horse shows, is of American invention. Some preparation is made at some of the European shows, but nothing in comparison with our American extravagance.

In order to be a successful showman some think it necessary that these expensive decorations shall accompany each animal. Are these decorations keeping the small but important breeder from exhibiting his products? Are the decorations a part of the consideration upon which these premiums are awarded? Have animals been left out of the money because they were not properly decorated?

All of the above questions are worthy of thought. The American plan of draft horse decoration has reached an extreme. It is absolutely a detriment to the best interests of the draft horse industry in this country. Some may say that these handsome decorations enhance the appearance of our draft horses. This may all be true; but if we cannot produce a class of draft horses in this country with enough beauty to attract the attention of any audience of horse lovers, let us stop and wonder why.

We contend that an animal properly groomed, with the mane and tail nicely brushed, and in a good condition, will present an appearance attractive enough for any audience. We further contend that the unnecessary expenses and styles should be left to some other kind of audience more in sympathy with extremes and extravagance.

Every draft horse show management in America should study this condition and realize that these troublesome and expensive decorations were keeping the small breeders from exhibiting their horses—holding back the very class of men that everyone interested in better live stock should be looking to for the best development of the business. Anything that will discourage the small breeders from showing or developing their stock is a detriment to the live stock industry in this country. These are the men upon whom the future progress and stability must depend.

The professional showmen have done much for which they deserve credit in the way of providing attractions; but the small breeders are the ones to be encouraged if we are looking to the future. It is bad enough to have a custom established in this country which requires that animals be pampered for a year or more in advance of a particular show, thus greatly retarding their production, and it is an added drawback to encumber the small breeder with a lot of unnecessary yarn, ribbon and other decorations on the animals he is willing to risk in show condition.

We hope to see every draft horse show in this country make a ruling that a draft horse to be exhibited can wear only a bridle. Another infamous practice permitted at every draft horse show in America is the plan of using ginger. A more disgraceful scene could not be found anywhere than to see that "vulgar stunt" pulled off in the face of an audience of intelligent people. If a set of animals do not possess enough attraction without all this unnecessary preparation, let us get down to solid principles and see what is wrong. If every small breeder in the country will write to his fair secretary demanding that these extravagant, unnecessary and artificial paraphernalia and practices be dispensed with, a wonderful change will take place in every draft horse show this coming season. If the managements of these shows are in earnest and appreciate the value of the small breeders, they will certainly take some action on this important subject.

An effort should be made by everyone interested in this matter at the present time by writing the secretaries of all shows in the district tributary. No one should take any offense at these statements. If the decorations are barred it should be just as fair for one as the other. Even the experienced exhibitors should welcome this change, because it would bring relief from a wonderful expense, not so much in material as in time and extra hired help. Not many exhibitors wish to carry with them any more attendants than is absolutely necessary. This decoration proposition has reached such a stage that many of the exhibitors will not lead a horse out to show a visitor, much less a judge, unless it is thoroughly decorated.

We now place this matter in the hands of the small breeders, who are to be our future exhibitors at the leading shows. Those interested may get busy and write such letters as they deem necessary. The management of practically every draft horse show in the country has said, "What can we do to get more of the small breeders to show their live stock?" Here is one point on which you can give them the answer.

HOW TO STOP UNSOUNDNESSES.

To the American Breeder: I think a lot of the effort to wipe out unsoundness in horses has been misdirected. With all our laws we cannot prevent the use, somewhere, of unsound pure-bred stallions. This is a big country. A class of stallions may be driven from one state to the other, but the unsound sires finally will be discovered standing for public service in the South or West, where an effort is being made to encourage the use of pure-bred sires, and the regulations are not so strict.

Just as long as these unsound sires are developed they will be used somewhere in this country. The rational thing to do in a case of this kind is to work for the production of only sound stallions, and the way to begin is to breed the pure-bred mares to nothing but sound, pure-bred stallions. If these registered mares are never mated with unsound sires, or sires of bad conformation, a big reduction will be made in the number of unsound stallions produced for public service.

The place to begin in a case of this kind is with the Record Associations. There are plenty of excellent sires that are sound and of fairly correct conformation to mate with all the pure-bred mares. If a ruling was put into effect by all of them that before the progeny of a pure-bred mare could be registered the sire must pass a veterinary inspection, both as to soundness and proper conformation, this ought not work a serious hardship on anyone, and certainly would be a step in the right direction. After a few generations of sound sires, the pure-bred stock in this country would show an almost complete freedom from unsoundness. Any breeder interested in a particular breed of horses should be only too glad to improve that particular breed by using only sound sires and forcing the other breeders to do likewise, and where there is a real disposition to get the best, one really superior sire could fertilize 300 mares, if necessary.

I would like to see this point dis-

A Very Sure Stallion

For sale; registered; black Percheron; coming eight years; sound; a very sure breeder; weight 1,600. Price $375.
A. R. BARR, Webster City, Iowa.

Percheron Stallion

High grade Percheron stallion for sale or trade; 5 years old; weight one ton; good disposition. Colts to show.
J. J. CURRY, GAYS. ILL.

For Sale

One Percheron stallion; 3 years old last September; from imported sire and dam; a good one; pasture broke. One imported stallion, 7 years; weight 1950; plenty colts to show.
Also a few registered fillies all of my own raising.
C. Stahly, Milford, Seward County, Neb.

BELGIAN STALLION

For Sale of Trade.
He is 8 years old, bay, imported, and weighs 1800 pounds in working condition. A sure breeder of extra good colts, but he has fillies here old enough to breed and I must change. Will trade for another Belgian as good.
Edward Springer, Oaklandon, Ind.

LOWEST PRICES

for the Next 60 Days on
LIMESTONE RIDGE FARM PERCHERON STALLIONS AND MARES.
Also Jacks, Jennets and Saddle Horses.
ISAAC C. LOHMAN,
Clinton County, Route 3, TURNEY, MO.

PERCHERON AND SHORTHORNS
For sale. The Percheron stallion is Imp. Ardent (46552) 33842; black; a ton horse; 14 years, sound and sure, colts to show.
Two roan Shorthorn bulls, calved last July and August; fair flesh; registerable.
H. M. WIBLE,
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SEVEN SHIRE STALLION COLTS

American bred; 4 coming 3 and 3 coming 2 years old. They are the clean bone, rugged kind.
Also one 4 year old; weighs a ton; clean and sound. Will sell one or the lot. Worth the money.
S. BENNINGTON'S SONS, Elkader, Ia.

FOR SALE.
Seven sound Percheron stallions; four broke for service; weight 1700 to 2100 pounds; 2 to 7 years old; all blacks and grays; guaranteed fully; my own breeding and raising; acclimated and broke to fences. Colts to show.
First class stallions priced to sell at live and let live prices.
GEO. W. SCHWAB, Clay Center, Nebr.

IMPORTED BELGIAN STALLION
For sale. Bay roan; six years old; weight 2100; heavy bone; good action; good feet; wide and a deep body. Books and plenty of colts to show. Sound and right in every way. Selling on account of ill health. Priced reasonable. You will find this one of the best horses in the state. For information and price, write
OSCAR LORENCE, Unionville, Mo.

Percheron Stallion

For sale. Glorieux, Jr., 95807 P. S. A.; foaled April, 1912; dark gray; heavy bone; fine style and action; Besique and Brilliant breeding. Sired by an imported state fair prize, weighing 2200, and out of the best brood mare we own.
JOHN W. MOORE & SONS,
Box 27, Canton, Fulton County, Illinois.

PERCHERON STALLION.
For sale. Five years old; weight close to a ton. Registered in Percheron Society of America. Will sell him worth the money. Write
J. H. KIDD, Ronte 30, Mars, Pa.

WANT TO LEASE

Good Percheron or Saddle stallion on the halves. Address
B. M. VARNELL, Grand Rivers, Ky.

PERCHERONS

The best yearling stallion in Iowa. also weanling stallions.
F. M. SMITH & SONS,
Crawfordsville, Iowa.

assed by breeders from all the states. ure-bred sires will soon be used ex- usively in Illinois and doubtless any other states. I believe it will ay the records to take such steps as e necessary to make pure-bred sires ore worthy of this recognition, and rtainly getting rid of unsoundnesses a step in the right direction.

Is it not better to place a restric- on on a few hundred horses used on ure-bred mares than to place a amper on the sale of many thou- ands and let the sources of unsound res continue unrestrained? There e now a large number of men who e afraid to buy stallions owing to e restrictions in some states. The ace to begin is at the foundation.

We had a lot of unsound animals ought to this country in early im- portations, in all of the breeds. It is me they were weeded out. Let us ear how other of your readers think is should be done.—W. M. C., Mc- ean County, Ill.

BREEDING WILD MARES.

A Utah subscriber states that he is owner of a ranch which is stocked ith western mares weighing about 0 pounds and that he wishes to use tter sires but the method of turning stallion with 25 mares would be too pensive to buy stallions good enough r his entire herd. He is asking how breed these mares with the capsule stem. A corral should be made with long shute in it so that six or eight ares could be put in this shute and nfined there by putting poles in ont of them and behind which should just wide enough to admit a mare this size. All of the real wild old ares should be separated and taken another part of the ranch and turn- loose with a herd stallion. The ping process should be dispensed ith. Let them go into this shute d confine them quietly working with em until they do not object to be- g handled. When the first shute s been worked with a while let them out quietly and let in another nch, keep this up every day until ese mares get so they are not fright- ed when they are touched. A little ndling of this kind will make a great fference. After they get so they are t afraid to be touched they may be ed with the capsule system very sily. The shute should be made so ere will be an opening come at the ght place to put the arm in to make amination and insert capsules. very ranchman should have a shute e this to examine his mares. On actically every ranch there are ares which do not produce colts or ver will. All such mares should dispensed with for some purpose. here is an advantage in breeding ese western mares as the majority them are in a very healthy con- tion. They are more regular pro- cers than mares in the corn belt. here is no reason why practically ery large ranch in the west has not opted this system. A lot of our eeders are doing it successfully. his is an advantage for the owners good sires in the western states. rrangements can be made with a nch owner who owns a number of ld mares to have them broke to the ute so that the stallion may be ought to his place once every three eeks and breed all the mares present. n owner of a good stallion may have veral such stands. It is possihle take a stallion a considerable dis- nce for a band of mares of this nd. Those little western mares ise mighty good colts as a rule hen mated with an outstanding sire. he western horses have made a onderful improvement. Some of the st draft horses found have little ony mares as their grandmothers. his shows what a few generations good blood and good feed can do.

To you is made the special sub- scription offer on back page.

BREEDING PROGRESS.

It is with pleasure we make the statement that great progress in horse breeding has been made during the last few years. The writer was formerly engaged in the breeding and selling of stallions and jacks, making from 50 to 100 sales a year. Information about the business was needed constantly, and this publication was started because of the limited amount of available printed information which he found.

It was disgusting indeed to dispose of a big fine young stallion or jack—one that had been tried and proved itself satisfactory—and later to receive a letter from the purchaser saying that the animal had not given satisfaction, a long list of complaints following. Where to get reliable information for these men, that they might do better for themselves and have better results generally, was a study. After carefully considering the question and finding that no publication serve their purpose the idea presented itself; why not start a publication of that kind? Where could a greater field of usefulness be found?

While breeders were proclaiming the fact that they were producing at least 80 per cent of live foals, they did not establish the fact. Breeders were hungry for information. They clamored to subscribe for the publication when it first started. Its wonderful and sturdy growth has been made without much solicitation. We doubt if any other publication ever had a more loyal list of subscribers or ever had a better class of men to co-operate with. The great success of the American Breeder is largely due to its readers. They have appreciated our efforts; they have not hesitated to tell us so, but the principal thing that interests all of us is the great results obtained.

By working together a better understanding has been formed concerning the business in general. We wish to continue this co-operation and hope to make our part of the work so substantial and reasonable in price that our family of readers will continue to increase. We are asking every one interested in the breeding business to join with us and make this the best and most profitable breeding season. We hope every one will be interested in our lessons and study them with the view of increasing the efficiency. There is yet much to learn in this world of creation. The words of encouragement coming from every section of the United States stimulates us to a greater activity. It is our intention to visit many sections of the country during the breeding season and make a careful study of conditions directly interesting horse breeders.

The writer remembers with pleasure the many interesting visits he has made to the homes of our readers. In order to be of much service in our given field one must visit those interested. Some of the best lessons learned and suggestions offered for further investigation have come from the small breeders who may own only one or two animals. Their entire mind is on this subject, they are making a specialty of it. They keep records of their work and many of these are studying the inside of a mare—something every breeder should do. There is little to be learned from the outside of a mare of breeding age. The most discouraging remark one hears is that it is too big a subject. Some men believe that it is necessary to learn the anatomy of the entire horse.

It is not so difficult to learn many things about the generative organs. This is the subject that breeders should understand more. We wish to thank our readers for the confidence and support they have given this publication. We are now receiving about 200 subscriptions daily. At the present rate we hope to be able to announce a larger bona fide paid in advance subscription list than any other live stock publication in the country. Along with this permanent and steady growth, we have been able to announce a lower subscription rate. With a little effort on behalf of every breeder we hope to be able to maintain this lower subscription price so as to benefit all those who are working with us.

We have been forced to do some unpleasant things but we have done

TAYLOR & JONES

WILLIAMSVILLE, SANGAMON COUNTY, ILLINOIS,

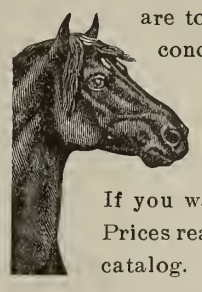


have for sale the **best** Imported and American-bred Percheron, Belgian and Shire Stallions at the **lowest prices** and with the **safest guarantee** of any firm in the business. Determine these facts by inspecton.

RESIDENCE AND BARNS IN TOWN.

Taylor & Jones, Box 160, Williamville, Sangamon County, Ill.

DUNHAMS PERCHERONS



are today, as for the past 50 years, the BEST, as shown conclusively at the fall fairs and International.

We now have at Oaklawn a most excellent and uniform lot of stallions and mares, having just recently received a LARGE NEW IMPORTATION.

If you want the best—stallions or mares—visit Oaklawn. Prices reasonable—guarantee the most liberal. Send for free catalog.

DUNHAMS WAYNE, DU PAGE COUNTY, ILLINOIS

Sixth Annual

30 Day March Sale

The offering consists of the following:

American-bred Percheron stallions, blacks and grays, 2 to 5 years old; weighing from 1700 to 2000.

Imported Percheron stallions, blacks and grays, 2 to 5 years old; weighing from 1700 to 2400. One exceptionally fine black imported 3-year-old weighing 2100, sired by Etudiant.

Imported Belgian stallions; sorrels and roans; two-year-olds, weighing from 1800 to 2150.

Imported Shire stallions, coming 2 and 3 year olds; browns and roans; weighing from 1600 to 2000.

Imported and American-bred Percheron mares, 2 to 5 year olds; blacks and grays; matched pairs, weighing from 3400 to 4000. Also some extra large imported and American bred, coming two-year-old fillies; blacks and grays.

Imported pair of brown Belgian mares, coming 3 year olds; weighing 3600. All mares of serviceable age are showing safe in foal.

Our stallions and mares have size, bone, quality and finish. No one can show you a higher class lot than we can. Every animal guaranteed sound, and a satisfactory breeder. Prices will be such as to effect an immediate disposal. Terms if required.

Homewood is conveniently located 23 miles south of Chicago on I. C., and Big Four Railroads. Trains to and from the city every hour. Barns near station.

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BELL PHONE HOMEWOOD, 58-W

R. L. HARRIMAN, Bunceton, Mo.

The Fine Horse and Jack Auctioneer of the West



I sell more horses and jacks than all others. Terms always right: work always up to the highest standard.



PETER HOPLEY & SON

are offering a grand lot of matured, imported Shire, Percheron and Belgian stalllions, 3 to 5 years old; weighing from 1900 to 2300. ¶A few American bred horses, 2 and 3 years old; weighing from 1700 to 2000. In order to make quick sales, we are offering these horses from $400 to $1200, at our stables only. We give 60 per cent breeding guarantee, and $500,000 stands back of it. Every Horse Sound, and Sold with a State Certificate.

ATLANTIC OR LEWIS, IOWA

them with a feeling that it was best in the long run for every one interested in live stock improvement. We have made some permanent enemies but in this day and age either a man or a publication that does not stand for substantial principles is not living up to his or its obligations. Every citizen should be useful and serve a purpose. We hope those who have been offended at any of our statements will carefully consider our position in the matter. Those who stand for the upbuilding of live stock and humanity have never had any reason to be offended at any exposures we have made. Progress in breeding refers to principle as well as production.

IMPROVING DEMAND FOR BEST HORSES.

To the American Breeder: Realizing that the intelligent farmers and breeders were becoming more interested in the raising of better draft horses, and that more of these men in a short time will demand better stallions, it became necessary to investigate the best way of procuring a better draft stallion to stand for service in my community, if I expected to remain in the breeding business.

After spending considerable time investigating, I could not understand how a stallioner was able to pay such enormous prices for stallions and be able to stand them at a reasonable service fee. If time and labor were all that was to be considered, the man might be well paid, but when we consider the price paid, the risk, and the interest on the investment for such high class stock, it certainly caused me to give this subject more and careful investigation. Knowing that some breeders in certain parts of the country were using the best stallions that could be purchased at that time, I began to inquire how they were making a success.

They could not afford to follow business in a haphazard way as some horsemen do, who do not have so much money in their breeding stock, so they bad taken special training on the breeding subject.

The result of the inquiry as to how these men conducted their business revealed to me how and why they were able to stand for service these high priced stallions and make good interest on their investment. Instead of breeding one, two, three and sometimes four mares each day, with as many services of the borse, as most horsemen were doing at that time, these men who had prepared themselves for the breeding business, were breeding several times the number of mares with only one or two services daily. Of course these men were putting into practice the up-to-date methods of breeding, just as the farmer is doing who is progressing in the producing of better grain and farm animals on his farm. These men were not only breeding a larger number of mares, but were getting a larger per cent of foals, which naturally increased their revenue and caused the mare owners who were raising the foals to be much encouraged over the increase in per cent of foals, and also over the quality of the offspring from such high class sires.

Being convinced that better stallions could be used in a community of educated farmers and citizens, I decided to purchase the best stallion, from a breeding standpoint, that I could buy and see if the results of my investigation of other breeders would apply to my territory. The horse selected was a large, draft stallion with plenty of quality. By using the scientific method of breeding and being able to breed mares at one service, and also being able to increase the per cent of foals about twenty per cent, I was thoroughly convinced that the best draft stallions could be made to pay in my community. Not being satisfied then with the breeding stock I was standing for service, for I had learned to see a few weak points in the stallions I once thought were almost perfect, I purchased another three year old stallion, but this time I gave still more particular attention to size, conformation, quality and action, than I had ever given before. By keeping these requirements in mind and observing closely the horse at which I was looking, I am safe in saying that the last horse is at least a twenty per cent better horse than I ever had before, and I attribute the being able to purchase such a horse to the fact that I had become better educated to the particular business in which we are engaged.

During the last few months I have visited many breeders covering nearly a dozen states. Also I took a general review at the Breeding School. I have been surprised at the large number of men who were taking advantage of the fact that several mares can be successfully bred from one service of a stallion. I have met a very large number of progressive breeders all over the country, who are buying better stallions.—Roy. E. Graham, Johnson County, Ind.

To you is made the special subscription offer on back page.

SMALL MONTANA MARES.

A Montana subscriber sent in an inquiry several months ago stating that he had a large band of western mares ranging in weight from 800 to 1,100 pounds. He asked our readers to give their opinions as to what kind and type of a stallion to use on these mares, to produce a class of horses suitable for the best and most profitable market. A number of men have sent in communications in reply to his invitation, but he now states that these breeders have failed to answer his question. He states that none of them have specified the particular market that the offspring of these mares should be sold in.

This breeder is prepared to buy good stallions and feed the mares and colts in such a way as to produce good horses. Who can advise this man and answer his questions? A general discussion is invited.

CAPSULE BREEDING OBJECTIONS.

In a recent issue we asked our subscribers to express themselves as to our policy concerning capsule breeding whether we should continue to teach the latest modern breeding methods or not. A general discussion on this subject was invited.

Out of the hundreds of letters received concerning this discussion, which we do not have space to print, we received only one letter to the contrary. Numerous letters have stated that they did not expect to adopt the capsule system at the present time but they were interested in knowing what was going on in this direction. There are some we did not hear from who are opposed to an advancement of any kind. There are others who do not take time to study the advantages. Practically every new method meets with some dissaproval. The certainty of financial gain, thoroughly presented, usually gets converts.

Every stallion or jack owner has a good number of mares in his community that he breeds three or four times each season without getting any colts. Many of these could easily be made producers by inserting a capsule into the uterus. We contend that such information is not only valuable to stallion owners themselves but to their customers. The customer is losing a lot of time and getting absolutely no results. The owner of the stallion or the stallion may be condemned on tbese grounds. Anything that will start these mares to breeding must be a benefit to some one. More especially is this necessary when these mares are presented during the very busiest part of the season, when other good mares could be bred so that there might be an opportunity to make every service count. If a breeder's customers bring in a dozen mares like this, each one of them might keep the breeder from collecting from $25 to $50 each, because the services were wasted on these mares.

If the breeder had two or three particular days each week, on which he would breed with capsules at a certain hour, and make only one service a day on such days, all such mares could be bred with capsules at that time, this would also help to catch up with the general rush of mares and not ruin the stallion or jack from too many services.

The only letter received objecting to capsule breeding information was as follows: To the American Breeder: In February 5th issue, I note an article regarding capsule breeding on which you invite discussion. As few mare owners will be likely to respond I will write a few lines of what has been my experience. The chief benefit we mare owners deprive from capsule breeding is in abnormal mares. There are many cases which the natural service is not a success, but if a man has mares which produce a colt at one or two natural services each year it is not easy to interest him in capsule breeding. In discussing the paper with non-subscribers, many times I get as an answer "yes, but I don't go much on that capsule system" and in such cases the good which might be done in checking the barren mare disease is crippled by the idea that the American Breeder advocates only capsule breeding. I write this with good intentions only.—J. H. McClure, Greene County, Ill.

ONE THOUSAND POUNDS AT SEVEN MONTHS.

To the American Breeder: As there has been a lot said in your paper in regard to the size, measurements and weights of colts, I will give you the measurements of my colt. It was born May 14, 1913; weighs 1,000 pounds; height, 60 inches; arm, 23 inches; below knee, 10 inches; around hock, 20 inches; below hock, 12 inches. He is a half Percheron and half Belgian, and a jet black fellow. Who can beat this for measurements on colts?—Roy Haley, Wayne County, Ohio.

To you is made the special subscription offer on back page.

LESSONS IN HORSE BREEDING

Editor's Note: Following the publication, last March, April, May and June, of a series of lessons on horse breeding, the American Breeder experienced a demand for extra papers far in excess of the usual supply of "extras" provided for in each press run. Animal husbandry instructors in agricultural colleges requested papers for their classes and stallion owners ordered extra papers for their customers. Hundreds more than we anticipated, sent in their subscriptions with the stipulation that the series of lessons be included. Our first plan for supplying this excess demand was to print the lessons in pamphlet form for distribution. Since then, however, new subscriptions have been received from several thousand breeders who have never seen these lessons, and who need them in order to make the most of other series of articles which are to follow. Doubtless, also, there are thousands of our old readers who will welcome an opportunity to review these lessons and refresh their memories concerning the important and vital matters of which they treat. We are, therefore, in the following columns, repeating (under appropriate sub-heads and slightly condensed) the full series of four lessons. We urge every new subscriber to study them carefully, every old subscriber to review them carefully, and every one, new or old, who gets this paper, to preserve it, as it is perhaps the only publication in the world, periodical or otherwise, from which can be obtained these important facts bearing directly on horse production. Other lessons will follow.

esson 1.—Anatomy of the Male Generative Organs.

In taking up the study of any subct it is first needed to have an unrstanding of the nature and scope the subject studied in order to fulunderstand the matter presented.

Anatomy for our purpose deals with e structure, form and relation of e component parts of the animal dy. It deals with cold facts as they e found. Shape and structure are udied without any regard to the nction or purpose of the parts. natomy is shorn of action for action function comes within the province physiology. Anatomy is necessar- the foundation science, for a corct knowledge of the parts that make a machine is required before a perct understanding can be had of its orkings. Physiology, then, deals th life and its activities while anatny has to do largely with the dead bjects. A study of the two subjects closely hand in hand and are proply intimately related. In fact it is fficult to discuss the one without croaching more or less upon the ner. No great attempt will be made this series of articles to follow osely the confines of the subject as e presentation will serve its purse better if references are occasiony made to the related branch.

It shall be our purpose to restrict r discussion to only such anatomil parts as concern our special study, mely—the generative organs. These rts can be studied and investigated dependently of the remainder of the imal body without difficulty and a w facts well learned will be far ore advantageous to those who folw us than a superficial smothering om an attempted general knowledge the entire structural body of the rse.

In the propagation of a species like e horse, Nature has delegated cern cells for that special purpose. It interesting to know that Nature arnges her work with considerable dision of labor, each task of which is signed to cells of a certain type. In e evolution and development of the dy through growth, cells are caused take on certain forms that best lt them for certain special work. amples of this lie in the muscle ls whose office it is to contract, the nerve cells whose function it to convey impulses in the outer covng of the body—the skin whose ssion it is largely to protect and in s process of specialization there is veloped both in the male and the fele bodies certain special cells whose nction it is to propogate the species kind.

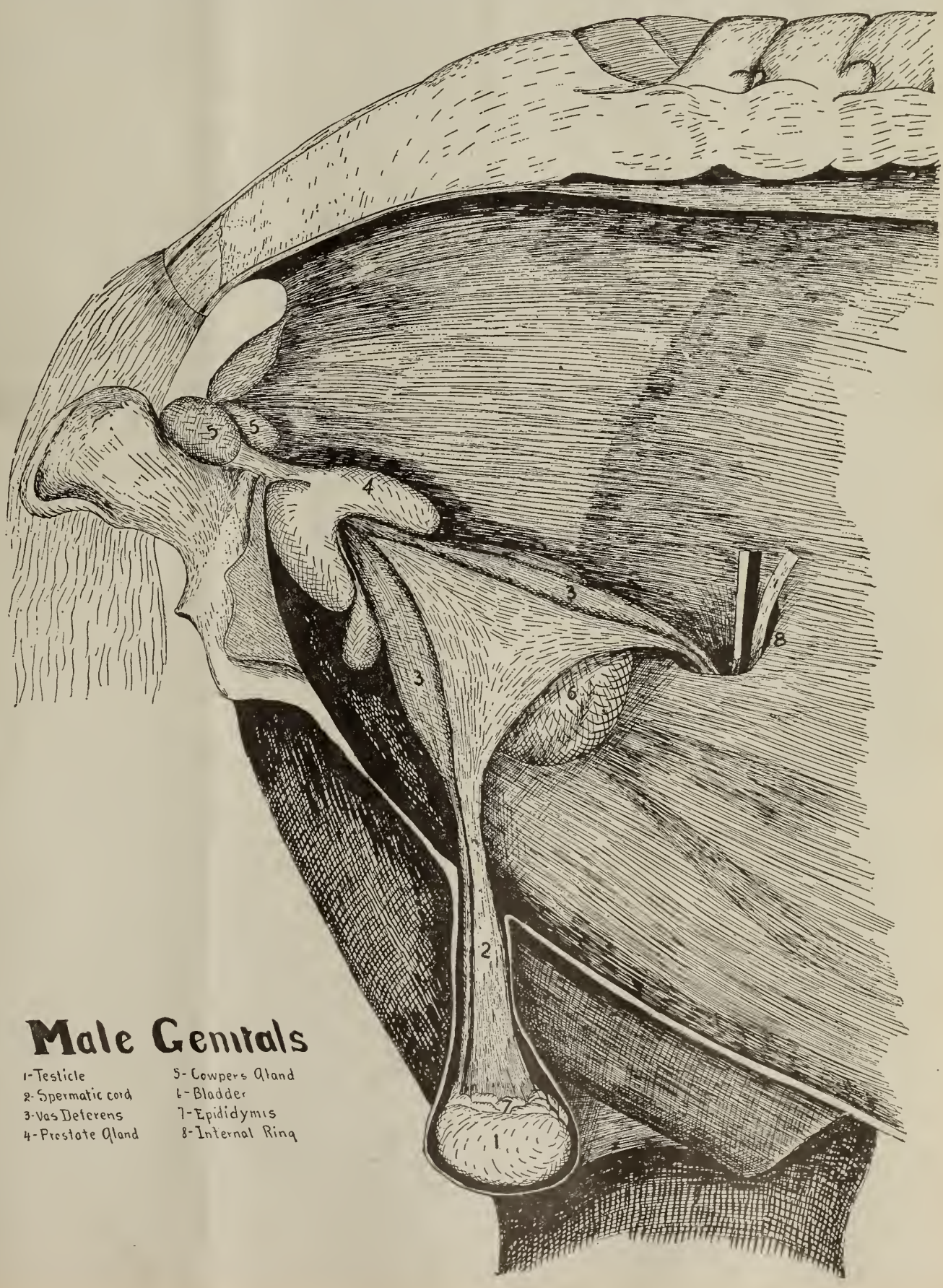
In the female one single cell, the um, is developed at a time. In the le thousands are developed for the ne purpose. The student of artiial insemination hopes to take adntage of Nature's generous and emingly wasteful method by effectg several divisions of the ejaculan of the male and by careful prace introduce a portion into the genative tract of a number of females d thus perform all that Nature can er do, and produce several foals ere only one was produced before. ere is nothing mysterious or unasonable about the method, for even er numerous divisions of the ejacued mass from the stallion, there is ll wasted hundreds of male cells, the reason that only one is reired in the fertilization of the cell om the female.

The cells that are elaborated in the le body are known as spermatozoa d they are developed in the testis. A spermatozoan is a cell so all that it requires a microscope detect it. It is about the 1/25,000 an inch in diameter and in its lly developed state it has an apndage, or tail, attached to one end the cell, which enables it to move om place to place. This is a necesy in a cell possessing the function culiar to it, for it must, as it were, arch for and find the female cell in der that fecundation may take place, d inasmuch as it is deposited at a int rather remote from the place ere it ordinarily meets the female ll it must traverse quite a space fore the union of the two can occur. is property of possessing ability to move from place to place is highly important in spermatozoa and the value of a stallion can be largely measured by the activity his cells show under the microscope.

The spermatozoa are delivered in the testicles, two glands that are located in the sack called the scrotum, between the thighs of the horse. The scrotum is made up of several layers which are only modifications of the muscles and tunics that compose the abdominal wall. The outer covering or skin is soft, thin and velvety and covered with short, fine hair and shows a well defined line in its middle running in the long direction of the animal, which is called the raphe.

The testicles, two in number, are separated from each other by a partition consisting of a certain arrangement of the walls of the scrotum. The scrotal sac communicates with the larger cavity above, containing the bowels, by means of a constructed passage-way which is known as the inguinal canal. It is through this canal that the blood vessels pass to and from the testicle and the secretion or spermatozoa are permitted to pass upward through a special duct. The nerves and other important structures reach the testicle through this same passageway and sometimes when the canal is unduly large or certain positions are assumed by a stallion the bowels or loose fat may pass into this narrow canal where from being compressed, disturbances in the way of seri.us inflamation usually follow, resulting in loss of life unless prompt relief is given. At the point where the inguinal canal opens into the scrotum below is spoken of as the external abdominal ring while the corresponding point above at the entrance of the abdominal cavity is known as the internal abdominal ring.

The testicles during the early life of the unborn colt are not found in the scrotal sac, but are located back



Male Genitals

1-Testicle
2-Spermatic cord
3-Vas Deferens
4-Prostate Gland
5-Cowpers Gland
6-Bladder
7-Epididymis
8-Internal Ring

Clydesdale Stallions

For Sale.



Prize winners and the produce of prize winners. They are mostly of the large, drafty type; ages one to four years old. Prices and terms most reasonable. Call on or write

W. V. HIXSON, Marengo, Iowa.

DRAFT STALLIONS FOR SALE

Coal black stallion; Clydesdale; registered as 14186; coming six years old. Colts to show. Never overbred; books to show; weight 2000; could easily weigh 2200. Has enough bone for 2500 pound horse. Excellent conformation, style and action. Good enough to head any herd. Must be seen to be appreciated. Also one grade Belgian stallion coming 8 years old; is a 1650 pound horse; stock guaranteed as represented. Quitting the farm, reason for selling. For price phone, write or see, **N. P. Matter, Colony, Kas., R.F.D. 3.**

CLYDESDALE STALLION

For sale. Six years old; weight 1850 pounds. Good breeder. Fillies in the way.

Five black jacks for sale; the big kind; from 15½ to 16 hands; black with white points; from one year old to six.

Also 5 spring bull calves (Herefords). All in good condition.

J. R. BROOKS, Cairo, Mo.

CLYDESDALE HORSES

Stallions and mares of all ages for sale.

Also Shorthorn Cattle.

W. A. DeMerritt

Route 2, Plainfield, Ill.

Suffolk Punch Horses

We have imported stallions and mares and also home bred stallions from weanlings to two year olds. All for sale at very low prices, as we are overstocked. Correspondence solicited.

G. A. Hamilton & Son, Loveland, Colo.

of the kidneys under and to the outer side of the backbone or vertebra. A provisior is made by means of which they are caused to be drawn in the direction of the internal abdominal ring from which point they may descend through the inguinal canal to the scrotum below. A failure of the cord that operates to guide the testicle to its natural destination results in the testicle remaining in the larger cavity containing the bowels, establishing a condition termed a ridgling. The testicles in such cases shares in the defect and as a rule are small and illy formed, which accounts for the fact that the great majority of ridgling horses are not breeders. This statement is made with the understanding that the breeding is dependent upon testicles that are within the abdominal cavity.

The testicle is invested with several coats, the outer one being smooth and shiny and is a continuation of the large smooth sheet that clothes



Spermatozoa in a very small particle of semen, magnified about 1,200 diameters.

the bowels on their outside and lines the larger cavity containing them.

Beneath this coat is the true envelope of the testicle (tunica albuginea). This coat is a dense fibrous structure, strong and resisting and is reflected into the gland from various directions so as to divide it up into numerous tabules. These tabules or compartments number from two to three hundred, and within these is found numerous convoluted tubules that are the places where the male cells or spermatozoa are developed. There is still another inner inverting coat of thin fragile nature made up chiefly of many small blood vessels that are concerned in supplying the gland with blood.

The convoluted tabules (tubuli seminiferi) begin within the testicle, near its outer circumference in a blind end and proceed in wavy lines in a common direction where all the tubules emerge from the testicle in straight lines (vasa efferentia). These several emerging vessels continue and form a structure immedately above the gland called the epididymis. The epididymis has at its anterior (front) end an enlargement called the globus major and posteriorly (at the rear) a smaller enlargement called the globus minor. The vessels that largely constitute the epididymis gradually unite until only one vessel remains, which is called the vas diferens.

The vas diferens continues upwards through the inguinal canal, passing the internal abdominal ring and turning backwards, is continued as the ejaculatory duct. The vas diferens is the canal through which the spermatozoa by means of the viratile ac-

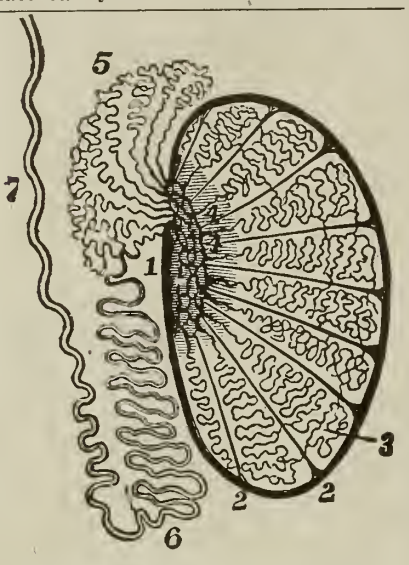


DIAGRAM OF THE TESTICLE.

1, Mediastinum testis, containing the rete testis; 2, 2, trabeculi; 3, one of the lobules; 4, 4, vasa recta; 5, globus major; 6, globus minor; 7, vas deferens.

tion of the appendages or tails, reach a point where they may rest until such time as copulation takes place, when they may be discharged through the ejaculatory duct into the uretha (that tube in the penis) from whence they may be projected to the exterior. The vas diferens is considerably dilated at its upper end, which serves as a receptacle for the cells until such time as they may be discharged.

At the same time the spermatozoa may have access to neighboring pear shaped receptacles (vesiculae seminoles) which lie a little back of and above the bladder. These receptacles not only serve as storing places for the spermatozoa but secrete a fluid which is instrumental in promoting the activity and life of those cells.

Proceeding backwards we find the prostate gland, an irregular shaped structure that consists of one central and two lateral lobes. The prostate gland secretes a fluid that is discharged into the uretha at the time of copulation and becomes mixed at that time with the spermatozoa and fluid from the vesiculae seminoles. The amount of fluid secreted by the prostate varies greatly and a stallion may ejaculate more than the normal quantity of semen and yet be sterile. Over use may stimulate the prostatic secretion and diminish the number and activities of the spermatozoa.

Two pear-shaped bodies lie just back of the prostate, and like the open into, and discharge their secretions into the urethal canal. These are called Cowpers glands and they secrete a rather thin alkalin fluid whose function it appears to be to lubricate the urethal canal in advance of the discharge previously alluded to.

It will be seen that semen is made up not only of the vital cells of the male (spermatozoa) but of secretions from several glands. The latter serve the purpose of providing fluids in which the cells are bathed, while prolongs their life and adds to their power of motility. It is quite impossible to estimate how long a spermatozoa will live under the favorable environment of the female genital tract, but there appears to be good reason to believe that it is not impossible for them to retain their vigor under these favorable surroundings from one heat period to another. In less unfavorable conditions outside the animal body it has been demonstrated that they will show activity for as much as eight or ten days.

The uretha is a membraneous tube extending from the neck of the bladder to the exterior. It serves the purpose of being an outlet not only for the semen but of the urine. It proceeds backwards from the bladder, makes a turn downward beneath the anus and becomes directed forwards where it is surrounded by the penis and extends the full length of that organ. Its termination is that portion that is exposed to view at the end of the penis. The uretha is surrounded by a muscular wall made up of circular muscles which perform a rythmic contraction during the process of urination or ejaculation and expel whatever may be within the canal, with considerable force.

The penis is an organ that is chiefly concerned in copulation. For this purpose it is so constructed anatomically that it may be erected and lengthened. It is composed of a peculiar tissue, so arranged that it may be promptly distended with blood. Its component parts are surrounded by a dense, fiborous envelope which latter is reflected into the organ thus dividing it up into numerous small compartments, or lobules. In the process of erection these lobules become quickly distended with blood, resulting in erection. This act would not occur were there no arrangement provided for ready escape of the blood from the organ. Certain muscles are arranged across the course of the outgoing blood vessels which become contracted during the process of erection, thus hindering the outflow of blood and so long as they are tensed just that long will an erection be maintained.





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Lesson II--Anatomy of the Female Generative Organs.

The ovaries resemble very much he testicles of the male, being corsponding organs. They are ovoid in hape and smaller than the testicles. hey occupy a position in the submbar region (beneath the backbone) ear the kidneys, and are supported in sition by the broad or suspensory gament and the vessels which supply em with blood. They are surrounded h their outer surface with a thin iny coat which is a continuation of e membrane that is seen on the surce of the bowels and inside the cavy. Beneath this membrane is a rong, tough envelope that forms the ue covering of the ovary (tunica buginea).

Upon cutting into an ovary it will found that its true substance is of reddish-white color and it is within is tissue that the ova are found. nall round ovisacs (Graafian vesces) invest the ova, and it will be ticed as any particular ovum devels that the Graafian vesicle also enrges and that it, with its contained um gradually works toward the surce of the ovary. By the time the um has matured the Graafian vesi has reached the surface, and, disving the investing coat of the ovary bursts on the surface. It must be membered that the ovum is a cell out 1-150th of an inch in diameter d it is a perfectly passive body; at is, it is unlike the spermatozoa respect to power of movement. It ust depend upon the action of some ighboring part for guidance into its oper channels. At the upper end the tube that forms the connection tween the ovary and horn of the erus there are certain expanded ger-like structures (fimbria) that rve to grasp and direct the released um into the canal that leads to the erus.

These fimbria possess the power of oving about and applying themselves that point where the ovum is being leased. Should they fail in their nction of properly directing the um it may happen that the latter ll drop off into space, and coming contact with some of the neighring organs may undergo at least rtial development provided it has en fecundated by having come in ntact with a spermatazoon. These etal developments which take place tside of the uterus are alluded to extra uterine gestations.

There is abundant proof that these tra uterine gestations are of rather equent occurrence as shown by the rious post-mortem findings in large cking houses where food animals e slaughtered. The ovary then is e gland or organ wherein the female l or ovum is developed, and when e of these cells is released it is ected into the uterine duct through ich it may pass to the uterus.

THE UTERINE DUCTS or Fallopian bes, are two very small tubes that mmunicate with the ovaries at the e end by means of their finger-like ocesses or fimbria and with the rns of the uterus at the other end. ey are arranged in a very convoluted or wavy-like manner which serves to retard the progress of the ovum through them. It is thought that fecundation usually takes place along the course of these constricted tubes as their small diameter favors the upward moving spermatozoa coming in close contact with the descending ovum. The ovum is aided in its progress in the direction of the uterus by the cells that line the uterine duct. These lining cells are little column-like processes having minute hair-like extensions on their ends and these hair-like extensions keep up a waving movement in the direction of the uterus which serves to propel the ovum slowly in that direction. The uterine ducts communicate with the horns of the uterus, there being two of the latter.

THE HORNS, or cornua, are simply continuations of the uterine body, only existing in a divided state. In other words, as one proceeds forward in the mare it is found that the uterus divides, forming two horns which later continue in the form of the uterine ducts to the ovaries.

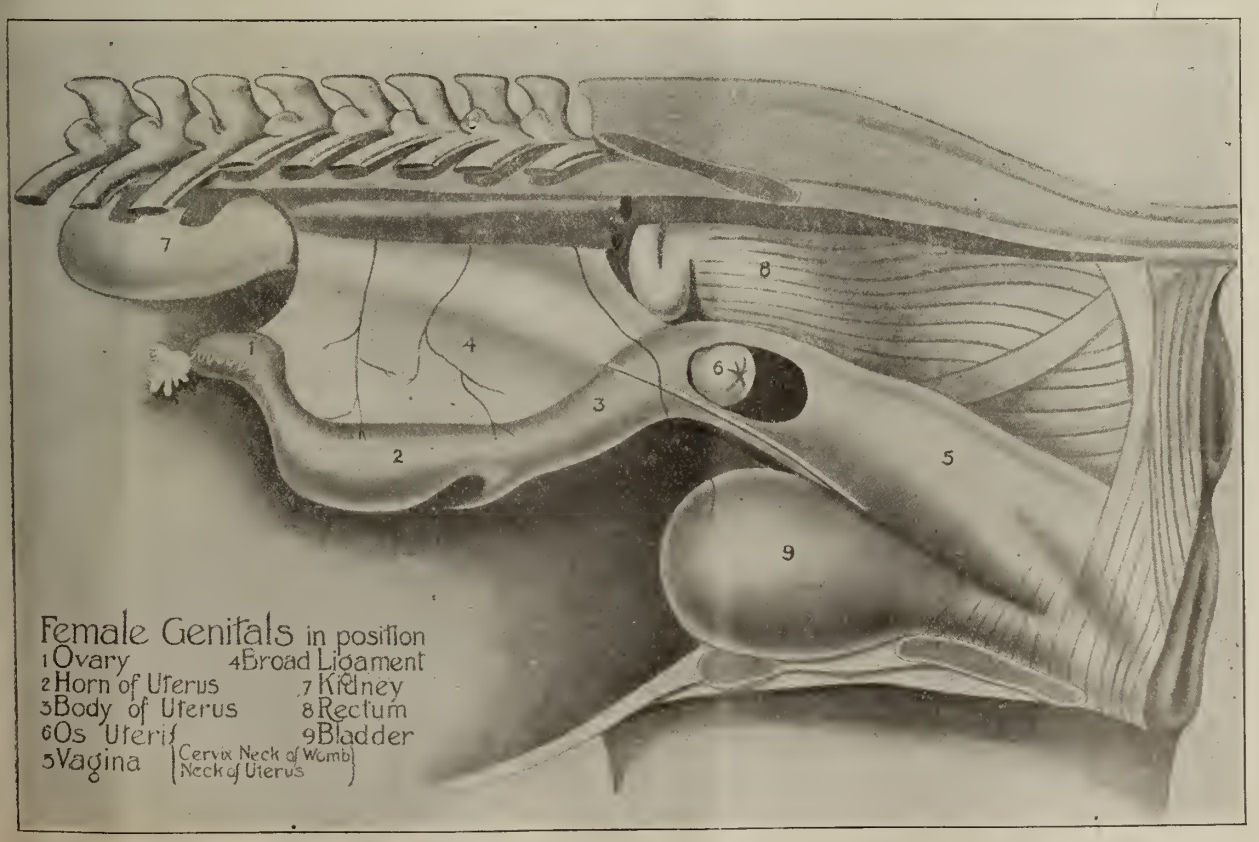
The horns do not differ materially in structure from the uterus itself, being made up of muscular walls and lined with a mucous membrane.

THE UTERUS is a cylindrical body somewhat flattened and is located in the sublumbar region and projects backward into the constricted pelvic cavity. The rectum, or posterior bowel, lies above it, while the bladder and some of the intestines are found below. It is supported in position by several very strong ligaments and it is made up of strong muscular walls which, like the horns, are lined with a mucous membrane. These muscular walls become considerably thickened and strengthened during the process of gestation in order that they may properly support and provide the necessary structures for the developing foetus.

The uterus then communicates with the cornua anteriorly, while posteriorly it communicates with the vagina. The latter communication is by means of structures that are peculiar in their make-up. At this point the uterus is constricted, forming what is known as the neck (cervix) which latter projects into the anterior part of the vagina and in the virgin mare is quite conspicuous.

The opening through the cervix by means of which the uterus communicates with the vagina is called the mouth or os uteri. This mouth or opening is closed in the most of healthy mares when not in season and during the period of gestation is effectually closed and sealed with a gelatinous plug. The blood supply of this organ is from two chief sources (uterine and utero-ovarian arteries) and these vessels become very much enlarged during the period of gestation in order that a proper amount of blood may be brought to the young foetus and its envelopes. The mucuous membrane of the uterus is voluminous and inclined to be arranged in folds, which needs to be taken into account when forming a depression during the process of extracting the semen when practicing artificial insemination.

THE VAGINA is situated immediately back of the uterus, being underneath the rectum, and is within the pelvic cavity. It is composed of muscular fibres which extend both in a longitudinal and circular direction.



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and mares, also Standard bred stallions and mares, $200 and up. **E. P. Hamilton & Sons, Garden Grove, Ia.** (Mention this paper). 23 miles S. W. of Chariton, Ia., 82 miles south of Des Moines, Ia., at Leroy.

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The vagina then may be either shortened or constricted by muscular contractions. Its mucuous membrane consists of flat cells arranged edge to edge, being known as the pavemental or squamous type. The vagina is the chief female organ of coition and communicates posteriorly with the vulva.

THE VULVA is the short entrance way to the vagina from the exterior. It is perhaps three or four inches in depth in the mare and has placed at its anterior termination a partial fringe or curtain which in the virgin mare usually is lacerated during the first copulation. This fringe, an irregular half-moon shape structure, is attached to the wall at the junction of the vulva and vagina and it is known as the hymen. On the floor of the vulva at its anterior part may be found a transverse fold of mucous membrane which drops over the opening into the bladder and serves as a valve to prevent the ready entrance of material from the vagina into that organ. The opening into the bladder is termed as the maetus urinae.

The external part of the vulva presents two vertical lips in the lower juncture of which is found a body called the clitoris. This body corresponds to the penis of the male and is capable of undergoing erection during sexual excitement. In those animals wherein sex is not clearly defined, that is, the animal partakes in a measure of the nature of both sexes (hermaphrodites), the clitoris frequently is found resembling a rudimentary penis. The external vulva drops forward in aged mares that have given birth to many colts on account of the continuous weight of the foetus dragging these parts forward and downward.

Lesson III---Physiology of the Genital Organs.

Estrum is a term signifying a desire or willingness on the part of the female to copulate with the male. This condition does not usually manifest itself until the female has reached a state of physical development that fits her to bear young. The most of animals in their wild state only experience estrum once or twice a year while under domestication it may appear at stated short intervals.

During this period the female is in a more or less state of mental excitement, the genital organs are congested and swollen and the female seeks the company of the male.

Estrum is closely associated with the release of the ovum from the ovary. In fact, in the great majority of the domestic animals it precedes ovulation. Nature has made no mistake in this regard for by so doing an opportunity is given for spermatozoa to become spread throughout the genital tract so that when the ovum is released it will be promptly met by the active male cells.

In the mare it has been fully demonstrated that the ovum is not released until from three to five days after the close of the heat period which fact may be taken advantage of in practicing artifical breeding on certain classes of mares. In some cases it has been found better to wait a couple of days after the heat period has passed before inserting a capsule, and many mares have been made reliable breeders again by this method that resisted all other attempts of getting them with foal.

The ovum is the female contribution towards a new life. It begins its development within the ovary, being a primary cell that was invaginated into the interior of the ovary from the surface of the latter. Many hundreds of these cells are invaginated in this way into the substance of the gland during foetal life where they lie dormant until such time as they are aroused to development. When a certain cell begins development there is arranged about it a capsule which contains fluid and as the process of growth goes on both the cell and capsule enlarge and it forces in the direction of least resistance until it reaches the surface of the ovary when it bursts and releases the ovum. The projecting fimbria catch up the ovum and conduct it into the narrow uterine duct along whose tortuous course it is slowly propelled by the waving cilia that line the latter. It is estimated that it may take as much as three days for the ovum to pass through the entire length of the uterine duct, which in its restricted confines gives every opportunity for the active spermatozoa to meet with it.

The male cells or spermatozoa are developed within the convoluted tubules of the testicles and are to begin with, primary cells lining those structures. As they develop they begin to take on the form of the future spermatozoa and in due time an appendage or tail is developed which enables them to move from place to place. This automatic power is essential when we take into account the rather remote distance they are deposited from the object of their search—the female cell or ovum.

While it has been repeatedly demonstrated that the stallion deposits the semen in the majority of cases within the uterus, yet in many cases he does not. In the event the semen is deposited in the anterior part of the vagina the spermatozoa must of their own power pass through the cervix, across the body of the uterus and up through the horns into the uterine duct before successful impregnation can be accomplished.

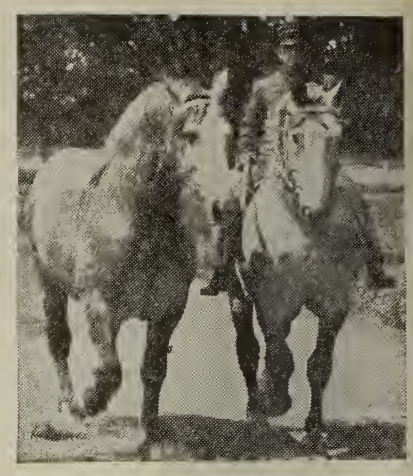
As the spermatozoa leave the testicle and come into the presence of the secretions provided by special

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Last fall, showing three stallions and one mare and colt, at two state fairs and the "Royal," I won 25 firsts and championship ribbons, 3 seconds, 2 gold medals and 3 silver medals. Some of these winners, and more of the same sort, are for sale. I'll use what are not sold, for they are all high class and right in every way. Come and see for yourself.

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The Belgian stallion, Cavour 6635; foaled June 2, 1911; sorrel, stripe in face; weighs over 1900 pounds at 32 months and is sure to weigh a ton. or more, when three years old. Imported sire and dam both weigh over a ton and can be seen here on the farm. Was first in class and reserve champion at the Benton-Warren Fair in 1913, the only time ever shown. Shows a sound state inspection certificate. If you are looking for something good with his whole life of usefulness before him, investigate this one. Don't buy a worn out one. Stop the high cost by buying from the breeder and saving the "Middleman's" profit.

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Each year I select 35 or 40 horses in France, so good and so correct in type, that any one of them will prove a great benefit to the man who buys it.

At the shows of the Southwest circuit, our horses won every championship and every group of five in 1913, as they have done most of the past five years. Our horses are handsome; our contract just and right; our insurance the best. Come and see me.

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and one Shire. They range in age from 1 to 7 years, all sound and heavy boned; weighing from 1800 to 2,200 pounds. There are 17 stallions and 13 mares. I will also sell my herd stallion, Jupiter 65723, coming 5 years old; weight, 2200.

These stallions are all sold under a guarantee to be 60 per cent foal getters. I have four year olds that weigh 2200; 2 coming 3 that weigh 1800. Can sell a good ton stallion for $750; sound and right in every way; some a little higher, and some lower. I will sell at a bargain to early buyers. I have both imported and home bred stock. **PETER J. EGGERS, DENISON, IOWA.**

MPORTED BLACK PERCHERON STALLION FOR SALE CHEAP.

Gravina 50728 (71374); sire Bon Marche 45869 (55741) by Casino 27830 (45462); dam Rustique (50456) by Doltaique 25159 (43193); second dam Pella (40342) by Francais 15747 (20374). Gravina is a sure foal getter; colts to show; 7 years old; weighs ,750 pounds in breeding condition. Reason for selling: Want to dissolve ompany. Might take registered mare r fillies in trade, but no stallion.

HAMANN, SACHS & JAGORO,
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GOING TO QUIT BUSINESS.

Four big stallions and jacks. One mp. Black Percheron; 7 years old; xtra heavy bone; straight legs; best f feet; weight 1900. Tried breeder; olts to show. One grade black Percheron.

Two big registered black Mammoth acks with white points; 15½ hands igh, standard; extra large head and ar; heavy bone; straight legs; big eet; good workers on mares or jenets. Plenty of colts to show.

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A dark iron gray three-year-old registered Percheron stallion; weighs now 800 and should mature at a ton. Extra heavy bone; well proportioned; a ood server; gentle and broke to work. ired by Minet 44897 (60963) and out f a $700 black 1900 pound mare; other olts to show her breeding.

If in the market for an extra good tallion at a breeder's price, call or rite at once.

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ares for sale at right prices. Reorded in Percheron Society of Amerca. If in need of a good stallion or are, you had better get busy, and uy of me. I will guarantee square ealing with the right kind of stallions nd mares to satisfy you, with quality nd weight.

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A black Percheron stallion, No. 32581; eight 1,900 pounds; age 12 years. Vould change for good jennets. Write r see,

V. R. HUSTED, - - Centerville, Kas.

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For Sale. Imported and home-bred tallions and mares at prices that will ell them.

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glands they seem to take on greater activity and power. It is essential first that the spermatozoa be at the very highest degree of vigor, and it is likewise important that that vigor be maintained by healthy stimulating secretions.

During the normal copulation the upper part of the body of the penis is the portion chiefly erected, the lower part and head not undergoing complete erection until ejaculation begins.

This feature facilitates dilation of the os and the act of aspiration aids in passing the semen into the uterus. Many more mares conceive when the semen is discharged into the uterus than do when the discharge terminates in the anterior part of the vagina and with good reason for these results. In the first place if the ejaculation is directly into the uterus the spermatozoa have a less distance to travel and they are usually in the most healthy part of the genital tract.

The spermatozoa while in the uterus are not exposed to the same destructive elements they would be for the reason that the uterus is a fairly well sealed cavity, being more remote from infection than the more exposed vagina.

While virile, active spermatozoa will live under favorable conditions for a great number of days, yet in practicing artificial insemination we must remember that, as a rule, these male cells are promptly destroyed by acids, various bacteria, exposure to bright sunlight, lowered temperature, etc.

The successful breeder carefully studies normal conditions and then proceeds to imitate them just as closely as possible. Spermatozoa may be kept active under artificial conditions for from eight to ten days, and under the favorable environment of a healthy uterus it is not unreasonable to think they will live much longer. Sufficient experiments and demonstrations have been practiced to a point where there can be no doubt that vigorous spermatozoa may live in a healthy uterus from one heat period to another.

This fact should help to explain the long periods of gestation that have come under the observation of every breeder.

Of the many thousand spermatozoa that have been ejaculated at a single service only one is used in the final act of conception. It resolves itself into a race of the strong and there apparently exists a cell attraction, that does not abate until an active spermatozoa has come in contact with and penetrated the female cell. When this occurs the external layer of the cell promptly assumes a more resting nature and the entrance of more cells is prevented and the positive attractions becomes negative.

This is the act of fecundation and a new being begins development. The tail of the male cell becomes lost in the fusion and the complicated process of cell division mark the changes from this time on. The divisions of the cell bodies are simple at first, but gradually there becomes arranged three chief layers from which all the separate parts of the body are formed. As the process of development goes on, a division of the body's labors takes place. Certain organs are formed whose office it is to perform certain definite functions. For instance, the heart is concerned in propelling the blood throughout the system, the lungs in furnishing the system the necessary oxygen, the kidneys in excreting waste, the skin as a protective covering, and so on.

Early in the history of all this the impregnated ovum is propelled through the uterine duct and becomes attached to the mucous lining of the cornua or body of the uterus, where it reposes during the process of development until it reaches a point where it may be safely expelled into the world to grow into one of its kind.

While in utero the new life is sustained for a time by nutrition furnished by its own cell and the secretions from the walls of the uterus, but nature shortly begins an investment with membranes which makes the problem of nutrition more certain and permanent, and these membranes are attached to the uterine wall which facilitates an interchange of nutrition including oxygen, and gives opportunity for an outlet for the waste material developed by the growing foetus.

It is difficult for one to appreciate the marvelous function of the uterus. It has certain functions to perform and in order to do those functions properly must be in a healthy state. Not only must it arrest the outward moving fecundated ovum, but after securing it to its own wall it must aid in nutrition and build up around the embryo membranes that will contribute to its well being.

This work is physiologically shaken somewhat for a time by those subsequent periods that marked regular estrum, but in the course of time this influence all subsides.

The third and sixth week, however, are the critical periods inasmuch as the attachment is so frail that the young

Percheron Mares and Stallions

Two coming two year old stallions; weight 1,650 each; two coming yearling stallions; three mares in foal to imported Percheron stallion, a ton horse. For prices, write,

E. N. IRISH, BLANDINSVILLE, ILL.

PERCHERONS at PRICES

that will profit early buyers of both stallions and mares. The mares range in age from 4 to 8 years old, and the stallions from 3 to 5. I have been in the business a long time and wish to reduce my stock. These are all good ones. If sold in a bunch I will make the price right.

I. H. VANNORSDEL, Kingsley, Iowa

WHITEOAK STOCK FARM

American Bred Percheron Stallions and Mares.



The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.

35 HOME-GROWN PERCHERON AND SHIRE STALLIONS AND MARES AND 50 REGISTERED JACKS AND JENNETS.

of the big boned, rugged kind, from 14 to 15½ hands high. This stock is all pasture raised and runs in the open. Will make a special low price on my imported Belgian herd horse, Champion 4980 (58644); sorrel; weight 2,200 pounds. His fillies are in the way. This horse is 6 years old and a sure breeder. All stock sold with breeding guarantee.

HENRY BECK, LITCHFIELD, NEBRASKA.

300 PERCHERONS

We have 50 suckers, both sexes; 100 yearlings, both sexes—Imported and Home Bred; 150 matured stallions and mares, from Two to Six Years.

We have the best mares and fillies we ever owned or ever saw. Our yearling stallions are of heavy bone and extra good quality. Our 2-year-old and matured stallions are not excelled by any barn in the United States. Our mares are bred to our best $3,000 stallions, Honorable and Jalape.

We have been in the horse business 39 years. Stock just as represented or we pay your expenses to look at them.

SINGMASTER & SONS, Keota, Iowa

Branch Barn Sioux City, Ia. SINGMASTER & WALKER.

Robison's Percherons

175 For Sale



Best Collection of *Stallions* and *Mares* ever offered for sale in the West. Come and see me if you mean business.

None Can Undersell Me

J. C. ROBISON, TOWANDA, KAS.

WOLF BROTHERS

Imported & American Bred Percherons and Belgians

Note winnings of our horses at two of the leading Western shows.

NEBRASKA STATE FAIR, 1913.

Percheron stallions open class: First, second and third in two year olds. Junior championship and first for best five stallions.

Percheron mares open class: First in three year olds and Grand champion mare was imported and sold by us.

Belgian stallions: First in yearlings; first, second and fourth in two year olds; first, third and fourth in three year olds; second in four year olds and over. Senior champion and Junior champion stallions.

National Western Live Stock Show at Denver, Colo.: Percheron stallions open class: Third in yearlings; first and third in two year olds; first in three year olds; first for five best stallions and reserve champion Percheron mares; second and third in two year olds; second in yearlings.

Belgian stallions: First in yearlings; first and second in two year olds; first and second in three year olds; Senior champion and Junior champion stallions.

These horses are all for sale at reasonable prices.

ALBION, BOONE COUNTY, NEBRASKA.

TWO PERCHERON STALLIONS

For sale, or will trade for good mares or mules. They are both by the 2,350 pound imported stallion, Favori 59441 (59321), as follows:

Vortex 95527, foaled 1912, black with star, 1450 pounds; out of Aubepline (imported), weight 2150, and Pawnee Diamond 72138, foaled 1910, dark steel gray, star, 1900 pounds; out of Polka (imported), weight 2000 pounds.

FRIZELL & SONS,
Frizell, Pawnee County, Kansas.

PERCHERONS.

Young Stallions—Brood Mares.

Stallions coming 2 to 4 years; mares all ages. A big, rugged, drafty, heavy boned lot, with plenty of quality and action. Blacks and greys. A large per cent sired by our herd horse, Superior 40605; weight 2300. Our horses are roughing it and are NOT overloaded with fat. JAMES LOONAN & SON, WATERLOO, IA. Farm 3 miles from Hudson; 8 miles from Waterloo.

WILL SWAP MY PERCHERON

stallion for one equally as good, or will sell right. He is the best of black; 9 years old; a good breeder and sure; well broken to all kinds of harness work and has the staying qualities of a thoroughbred. Won first over the grand champion of the St. Louis Exposition.

THOS. S. WORK, Fort Morgan, Colo.

75-PERCHERONS-75

Thoroughly acclimated. Young; good colors and very high class.

CRANDALL & DANFORTH,
Randolph, Minn.

PERCHERON STALLIONS

FOR SALE, from weanlings to 4 years old. All of my own breeding, including the prize winners at the Illinois State Fair. Have dams and sire to show. Buy from the breeder and save money.

J. P. DETWEILER, Congerville, Ill.
Between Bloomington and Peoria, on L. E. & W. R. R.

PERCHERONS FOR SALE.

I am offering an extra fine lot of coming two, three and four year old stallions for sale. Large draft kind with large clean bone. Also some extra good mares in foal. Will be priced worth the money.

E. D. SEAMANS,
Salem, Henry County, Route 1, Iowa.

PERCHERONS

I now have on hand a very choice lot of good young stallions and mares of all ages that I am offering at bargain prices. Terms to suit. Will also furnish horses of all kinds on orders from one to car load lots. Barn in town.

A. R. IVES, Delavan, Wis.

A Bargain

I am forced to sell at a loss a fine Percheron stallion that has show quality, and the very best of breeding. His photograph and breeding will gladly be sent to any interested party. Farm is 26 miles from Chicago.

L. E. TOMPKINS, Palatine, Ill.

PERCHERON STALLION.

Ragoleur 41399 P. S. A., foaled 1904, dapple gray, 2100 lbs. Very heavy boned. A fine breeder; colts to show. Am quitting the business, my reason for selling. Price $700. He cost us $1,000 as a 2-year-old and was well worth the money.

JOHN B. & J. W. SMITH,
Wellsville, Kansas.

PERCHERON
Stallions, Mares and Fillies

Imported and home bred, for sale at reasonable prices.

W. C. BAUGHMAN, Pulaski, Iowa.

PERCHERON STALLIONS

For sale. Eight head of two year old stallions (coming 3); one 5 year old stallion, also yearlings and weanlings. All recorded Percheron Society of America. Blacks and greys. Good individuals and priced where you can afford to buy.

WRIGHT BROS.,
Mt. Pleasant, Henry County, Iowa.

to discuss some of the causes of disease with hints on how, in our work, we may be able to recognize disease; how we may understand the manner in which it spreads and how we may avoid being instrumental in its dissemination and in that way do effective work in our attempts toward improved breeding.

Very few of us realize that the chief causes of the several ailments that man and animals are affected with, exist in forms so small that the most practiced eye fails to discover them. It is only since powerful magnifying glasses or microscopes have been developed that we have been able to see what is really the actual cause of the several diseases that are met with.

It has been found, and repeatedly proved, that the chief cause of nearly all our sickness exists in low forms of vegetable life, organism so small that it requires the most powerful lens to discover. Unquestionably there are many organisms that are responsible for disease that cannot be seen at all.

Not all micro-organisms are capable of producing disease. There are many that are known to be harmless. There appears to be no doubt, however, that a harmless germ may, under certain conditions of growth, become disease producing. On the other hand certain germs that are extremely virulent and capable when gaining access to the body of producing death in a few hours, may, by certain methods employed in their growth, be made entirely harmless.

Again, the physical condition of the body has much to do with whether or not disease will manifest itself.

Should the body be in a state of high physical vigor, then germs that ordinarily are disease producing may have no effect, while at another time when the physical state is at a low standard, these same germs might cause great illness and even death.

The lowering of vitality and resistance appears to not only open the way for disease producing germs, but these same germs seem to thrive and wax more virulent on the fluids of such a body. No doubt our methods and practices of civilization are greatly responsible for many harmless germs becoming virulent. Opportunity for growth in altered and changed fields causes them to assume disease producing properties and we are to be reminded that this state of affairs is increasing. It is largely through this condition that new diseases develop and attract our attention.

Scarcely a season passes but what either in man or animals we learn of the outbreak of some disorder whose nature and cause is not understood. These disorders spring up and often large areas become involved.

Changes occur which makes less favorable the growth of the germs and the disease subsides and may not be heard of again for years.

The secretions and excretions of the body supply a very favorable soil or field in which germs may grow, and we might say that our bodies are fairly permeated with some form of germ life. They exist in harmless forms and disease producing forms, and whether or not we shall suffer from physical ills depends in a great measure on our bodily resistance. Certain organisms seem regularly to inhabit certain parts of the body and in their proper place are really beneficial. On the other hand, the presence of some other form of germ life in that part would mean disease. Some germs are capable of producing disease in a body only once. As an effect of such disease there seems to be changes take place so that ever after that particular body will not contract the same disease again. We speak of such a condition as an immunity. Some people and animals enjoy a natural immunity against certain diseases. For instance, hog cholera is a disease of swine, other animals do not have it; black leg is a disease of cattle; influenza is largely a disease of horses. Tuberculosis, on the other hand, affects nearly all animals and includes the human race.

We are to recognize that germs are present everywhere. Our bodies are filled with them and they clothe our exterior. They are adherent to all kinds of objects. We can toucn nothing that is not covered with them.

A fly may be permitted to walk over a sterile plate of culture media and in a few days thousands of germs will be found growing at the very point of his every foot step. Germs abound on everything and are moved largely from place to place by particles of dust that are set in motion by air currents. An atmosphere free from dust is comparatively free from germs and causing disease in that way is not regarded of so great importance as once held. On the other hand, the germ ladened food that finds its way to our mouths is no doubt, a far greater cause of disease than the fewer number that gain entrance through the respiratory tract.

With the knowledge that our persons, also the instruments and appliances we are to use in our work, are germ ladened (and we do not know what proportion of the germs may be capable of producing disease if introduced into certain parts of the body), it behooves us to take such steps as will insure the destruction of all the germs that may be adhering to any instrument we may choose to use. It has been found that a certain class of chemical agents are capable of destroying germs of all kinds. In order to do this, however, effectively, the solutions have to be made so strong, and the parts that are to be disinfected have to be saturated so long with the solution that it makes the whole matter rather impracticable excepting for certain purposes.

Perhaps the most practical and successful way of destroying the germs that may adhere to the instruments is by means of moist heat. No germ can survive boiling for any great length of time. By boiling the instruments to be used for ten or fifteen minutes, one not only frees them from dangerous germ life, but has on hand besides a sterile liquid to keep them in or use for any purpose wherein it may be needed in the breeding work. The man that is to do the work cannot very well boil himself, but he can put on a clean oversuit that has been boiled. With his sleeves rolled high he can scrub his hands and arms with a nail brush that has been scalded, using water as warm as he can stand and using plenty of good soap. The operator's nails should be kept closely trimmed and each time after washing he should carefully rinse off the hands and arms in the water made sterile by boiling. During his work he should be very careful about permitting his hands or arms to touch contaminated objects, remembering that all objects not previously sterilized are contaminated.

If he is to examine several mares he should have the external genitals prepared by an assistant with warm water and soap, and finally rinsed with sterilized water.

The mares should be examined in the order of their apparent health or soundness, as indicated by external conditions, beginning with the apparently most healthy. The operator embryo may become easily dislodged and an early abortion occur.

It is our intention in this lesson

Joseph Rousselle & Sons, Seward, Nebraska

PERCHERON, BELGIAN AND SHIRE STALLIONS AND MARES

We make a specialty of good, big, rugged type and action. Our two year olds weigh from 1800 to 1900; age horses from 1850 to 2260. In fact, we can show about as big horses as are living. We were in Europe early, which enabled us to get the right kind. We are natives of France and save in buying, also in selling to customers. Prices from $900 to $1,250; a few tops a little higher; home-bred come cheaper. Will furnish a state license according to the Nebraska law. Our guarantee and terms are right. Write, or better, come and see us. Seward is 26 miles west of Lincoln. Farm joins city on the north.

IMPORTED DRAFT STALLIONS FOR SALE.

Four extra good Belgians; ages 6 to 7; average weight 2,300. One good French draft; 4 years old; weight 2,000. This is an extra good one. These have been used in our stud since imported, and we have many fine colts their gets, to show, as well as a large number of mares in foal, proving them splendid sires.

We are making a change in our business operations, and will offer these stallions, quality considered, at remarkable prices. If interested write or come and see them. Our barns are but a mile from the station, where we will meet you.

We make a specialty of buying stallions or pure bred mares on orders. If your community is in need of a good draft stallion we want to hear from you. All records are complete on each horse.

R. J. CRAWFORD & SON, MILES, IOWA. **PHONE 163, MILES.**

We Write Life Insurance on Horses.

PERCHERONS

Prices That Will Profit Early Buyers on Both Stallions and Mares.

The mares range in age from weanlings to aged mares, and the stallions from weanlings to 3-year olds past.

I have been in the business a long time and on account of not being able to get competent help am compelled to close out. If sold in a bunch I will make the price right.

GEORGE HIRSCHMAN, Pierson, Iowa

Percheron Stallions, Jacks and Jennets



Imported black Percheron stallions, 5 and 6 years old; weight from 1700 to 2100 pounds. These horses are well broke and tried breeders. Can show best colts in Kansas. Can use a strictly good two or three year old jack on a trade for one of these stallions.

Big, black, registered Mammoth jacks and jennets; 1 to 5 years old. Jacks 15 to 16 hands high; tried breeders and quick workers. Can show colts. Herd headed by imported Spanish jack. We won more prizes at the Kansas Sate Fair in 1912 that all our competitors. Farm 30 miles Northwest of Hutchinson. Come and see us. Will meet trains at Chase or Raymond.

J. P. & M. H. MALONE, CHASE, RICE COUNTY, KANSAS.



For Sale

the best lot of home-bred and imported PERCHERON and BELGIAN stalions and mares in the West for the money. We import most of our stock as yearlings, hence we can sell you a BETTER horse or mare for less money than those that do not import so young. FORTY YEARS in the business. ONE HUNDRED stallions and ONE HUNDRED mares to sell. Some of the best kept at this barn at all times. Two to seven years old. Address—

SINGMASTER & WALKER
BARN "S" STOCKYARDS SIOUX CITY, IOWA.

Percherons

For sale. One imported, nine years old; weighs 1850; black. Two coming three; black and grey; weight 1850 and 1800. Will make a ton each. Buy them of the farmer and breeder.

CHAS. E. WARREN,
Sutherland, Iowa.

4 GOOD PERCHERON STALLIONS

Two Are Imported; Two Home Bred

And all ready for service. These are for sale at reasonable prices. I have also for sale several younger stallions and some imported and American bred mares and fillies, all good.

MANUEL CROSS, Adrian, Minn.

IMPORTED AND HOME BRED STALLIONS AND MARES.

PERCHERONS, BELGIANS, SHIRES.

The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Percheron this year. See what we have before buying elsewhere. **Address Hart Bros. Osceola, Iowa.**



FISHER & WALKER
Importers and Breeders of
PERCHERON HORSES
and dealers in Standard Bred Horses, Tennessee and Kentucky Jacks.
Main barn, 1215 E. Missouri St., Evansville, Ind. Branch barn, Clarksburg, W. Va.
All stock guaranteed and prices right and terms to suit customer.
References, Banker's National Bank.

PERCHERON STALLIONS.

A choice pair of two year olds; blacks; plenty of size and bone.

A. M. DULL & SON, Washington, Kan.

URE BRED PERCHERON STALLION

For sale. Black, with star in fore-ead; 5 years old; sound; 16.3 hands; eight 1800 pounds; good disposition; good breeder and a sure foal getter; roke to work; colts to show. Have ot time to take care of him, reason or selling. Will price him right.

HAS. YOUNG, Taylorville, Ill., Route 2

For Sale--2 Registered Percheron Stallions

Full brothers, 2 and 4 years old. Both lack. Sired by Imp. Ellan, their dam Brilliant bred mare. Will make 800-lb. stallion at maturity. I bred oth these colts, and will sell them orth the money. See me or write,

. H. McCULLOH, Creighton, Missouri.

150 STALLIONS

Imported and home-bred stallions. I uarantee to sell you stallions for less oney than any firm in America. Come a Live Horse Market and see all raft breeds. Reference, any Bank in reston. **A. Latimer Wilson, Creston, owa.**

ERCHERON, BELGIAN, SHIER AND HACKNEY STALLIONS AND MARES

Imported and American-bred; 2 to 4 ears old. Prices on most all $700 to 1,000.

ew W. Cochran, Crawfordsville, Ind. Office 205 Ben Hur Bldg.

ERCHERON MARES AND FILLIES WANTED.

Mares must be between 3 and 8 years ld; safe in foal, sound and of good onformation, and must weigh 1,800 or ver.

Fillies must be good and growthy, ound and of good conformation.

All stock registered in Percheron So-ety of America. Address—**C. J., American Breeder,** 225 West 12th St., Kansas City, Mo.

PERCHERON STALLION

or sale. Color, gray; two years old; nported in dam; a good thick colt; onderful back, neck and hips; goes ke a coach horse, and is sound. His am was a ton mare. Stood second lace Paris show, 1910. Price $700. Also have Angus cattle for sale.

I. B. WALKER Clarinda, Iowa

A Good One

On account of the many mares sired y him in this section, we are offering o sell our imported black Percheron tallion; weight 1900 pounds; absolute-y sound. Can be bought for less than e will make in one season.

ROETT BROS., Alexandria, Nebr.

STALLION FOR SALE

One seven-eights Percheron stallion; years old; color gray; weight 1600. known breeder and gets colts of ood quality. Is a compact built horse f plenty of bone and style and action. fine individual and sound. Address,

Marquis A. Churchill, Randall, Minn., Route 2.

To Trade For Jack

Registered stallion; black; coming 7 his spring; weight 1,800 pounds; good reeder and sure. I must get rid of his horse on account of his colts. He as passed the inspection as sound. Will trade for a good jack.

LBERT SHAFER Cedar Creek, Neb.

GOOD PERCHERON STALLIONS.

One black; 2-year-old; extra; 1900 ounds. One dapple grey; 4 years old; veight, 2040 pounds. One black grey; years old; 1895 pounds. F. A. McCABE, Box 2, BLUE MOUND, KANS.

PERCHERON STALLIONS AND MARES

For sale, sired by the great horse, Brilliant D. 45336.

W. W. WATERS,

Vest Liberty, Iowa. Route 4.

Pure Bred Percheron Mares

For sale; in foal to prize winning tallion; registered in P. S. A.

C. P. O'DONNELL, Winchester, Ill.

MAPLEWOOD PERCHERONS.

A choice selection of stallions and nares. Buy them direct from the armer and breeder at farmer's prices.

C. G. ANDERSON,

Hector, Minn. R. 5. C. M. & St. P. R. R.

PERCHERON AND BELGIAN.

Stallions. Can show the buyer one stallion or 50, $450 and up. Some weigh 2,160 pounds. For sale, part cash, balance, 1, 2, and 3 years at 6 per cent.

R. I. LITTLE, Route 2. FAIRFAX, IA.

should, as a matter of precaution, thoroughly wash and rinse his arms before making each separate examination. Did he not do this he might be as great a factor in spreading disease and barrenness as the stallion that is allowed to serve mares promiscuously. Mares that do not conceive readily when it is known not to be the fault of jack or stallion should be very carefully examined. It is here that the stallion owner has much to learn, yet if he will be a student and apply himself as diligently as he would in any other undertaking in which he expected to succeed, many of these perplexing and mystifying problems would be cleared up. Every keen observer will soon be able to detect the difference between a natural and an unnatural discharge from the genital tract. It will be noted that the natural discharges are closely associated with estrum, and that the abnormal ones are more continuous. This latter fact may not be always observable from the fact that when the uterus alone is involved the fluid may be retained and only be thrown off periodically. There is many a sterile mare that apparently is in the very pink of condition that fails to breed because of an infection of the uterus. Many of these cases give no external sign of disease, but if the hand is carefully introduced into the vagina, and two fingers passed through the cervix, turning the hand with the palm upward, and bearing down firmly, it will be found in a great majority of these cases, upon withdrawing the hand, that it is filled with a fluid that is the result of disease. The admixture of virile spermatozoa with this fluid, and observing what results under the microscope will convince any man of the folly of breeding such a mare in her present condition.

We hope our readers will not be instrumental in promoting this class of cases through either carelessness on their part in making examinations or cause a spread of the disease through the stallion direct.

GIRLS STUDYING LIVE STOCK.

In a good many states teachers in the common schools are required to give some instruction in agriculture, and as a majority of the country school teachers are ladies, girls and young women are largely represented in many agricultural classes. J. A.



Eversmeyer & Son, of Lincoln County, Mo., sent us recently the accompanying photograph showing part of a class in agriculture from the Buchanan High School which visited the stock farm of Messrs. Eversmeyer in connection with the study of types and breeds of live stock.

WHO WILL GIVE THIS INFORMATION?

To the American Breeder:—I would like to locate in Northwestern Nebraska or Wyoming to raise horses and cattle on grazing land. Would like to hear through your paper whether there is plenty of free grazing land, or can it be leased, and on what terms? How would draft horses do on a range? Will they get out and rustle? I hope to hear from some one that knows. Please answer through the American Breeder. H. Kirchner, Wright County, Iowa.

ORDERS MORE OF THE SAME.

To the American Breeder:—My last ad in your paper did me a lot of good, so please insert the following ad and send me bill for same. Will remit at once. J. L. Buchanan, Carroll County, Iowa.

Stallions

Percherons & Belgians

Geo. W. Souers & Sons

Huntington, Ind.

125 Head of Stallions and Mares

Cheapest Place in America

TO BUY. A DOLLAR SAVED IS TWO DOLLARS EARNED. THIS IS WHAT WE DO FOR YOU.

Home Bred Stallions as low as $300. Imported horses at prices unprecedented. Two-year-olds from 1,650 to 2,000 pounds, with a world of bone and quality.

Forty head of real brood mares; big bone, rugged pairs of matched blacks, grays and bays, all bred and safe in foal to our herd stallion.

We more than meet competition—we create it.

L. R. Wiley, Route 9, Emporia, Kas

North & Robinson Co.

ANNUAL SALE

March 19 and March 20, 1914

60 Head of Imported and Home Bred Percheron, Belgian and Shire Stallions and Mares

This sale will include 30 stallions of the different breeds, ranging from one year old to matured ages.

Matured stallions weighing from 1850 to 2200 pounds. You will see more ton stallions in this sale, than in any sale of the season. They are an exceptionally good lot of draft stallions with plenty of bone, style and action. Number of two-year-olds, weighing better than 2000 pounds. If you want a first-class stallion, you will not be disappointed with this sale.

Thirty head of imported Percheron and Belgian mares, ranging in ages from one to six years old. They are an extra good lot with weight and bone. They are the good brood mare type. Bred to a 2200-pound stallion. This stallion will be shown on day of sale.

We believe this to be the best offering we have ever sold at auction. Everything will be sold to the highest bidder without reserve. Stallions will be sold with the regular 60 per cent breeding guaranty. Mares guaranteed breeders.

Sale will be held in The Bradstreet-Clemens Sale Pavilion. Catalogue ready March 10th. Ask for it now, mentioning the American Breeder.

North & Robinson Co.

Grand Island, Nebr.

Auctioneer, Col. Z. S. Branson

Special Subscription Offer!

The regular subscription price to the American Breeder is $1.00 per year, but in the belief that we can save ourselves in the future, two-thirds of the work of sending out notices and of revising our subscription lists, we are trying the experiment for a short time of giving the paper

3 YEARS FOR $1.00

This offer was first made for the holidays only, but has shown such good results we have decided to keep it open awhile longer. If all who have not already renewed will do so promptly, and use their best efforts in securing subscriptions, this low rate will mean an important saving in money to them now, and a big saving in work to us later.

REMEMBER

The American Breeder prints more reliable information for horse breeders than has ever been obtainable from any other source. Every issue (and there are two issues every month) is worth several times the subscription price.

N. B. We are making no reduction whatever from our regular price on one year subscriptions. **The rate is for three-year subscriptions only.** Every subscription stops when the time is out. Until this offer is withdrawn $1.00 will pay for three years' renewal or three years' new subscription.

Do Not Delay, But Send Your Order NOW to

Graham Publishing Co.,* (225 West 12th St.) *Kansas City, Mo.

Stallion Service Record Book

This book has 200 pages like the specimen page in this ad. It is substantially bound with a good, strong waterproof cover. It has 20 index pages for keeping the owners' names in alphabetical order so that any name or mare can be found quickly.

The breeding contract at the bottom is the strongest possible kind of a note. It is a big help in making collections, as nearly every state has a law for the collection of labor debts without exemption, and this is a contract to pay for services rendered. Before it is signed run a pencil through two of the lines in the contract, leaving the line that makes the kind of a contract you want. Many will sign a contract who would refuse to give a note.

This book has a calendar and a gestation table. It can be used for several sires without carrying more than one book. This is the most complete and up-to-date service record book printed. It is a nice size and can be carried easily in any pocket. Every breeder should have one. After improving it for several years, the result is this most satisfactory book. A complete new edition is just out. Although this new book has double the capacity of those offered heretofore, it sells at the old price. It is not bulky as it carries no advertising or other unnecessary matter. It will be the standard record book used by the leading breeders.

If you are not satisfied with the book or do not consider it the best and cheapest on the market, return it and your money will be cheerfully refunded. The price is 50 cents; six for $2.75; postage prepaid. Send all orders to the

Graham Publishing Company

225 West 12th Street, Kansas City, Mo.

Sire Lucifer

Mare Belle Color Gray Age 6

Marks Left front foot white

Womb {Closed / Healthy / Loose} Height 16 hands Colt {Yes / No}

Mare Owner John Brown

P. O. Kansas City, Mo.

Capsule

DATE BRED.

Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1									
...	...	...	...	...	...	...	...	...	...
22									

RETRIED

	15								
...	...	...	...	...	...	...	...	...	...
	22								

BREEDING CONTRACT

$ 15.00 Date Feb. 1, 1914

For services rendered, I promise to pay (fill in with stallion owner's name)

_____ or assigns fifteen dollars

~~When above described mare is known to be in foal~~

~~When above described mare delivers a living colt~~

When colt of above described mare stands and sucks

or before mare changes ownership, mortgaged or leaves county.

Signed John Brown

Page 16

Above shows exact size of page and the way to properly fill out the blank for one form of breeding contract, scratching out extra lines.

6.05
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25 MAR 1914

THE AMERICAN BREEDER

A Farmers' Paper, Devoted to the Breeding and Care of Their Live Stock, and the Welfare of Their Families and Homes.

Published Twice a Month. Subscription Price, $1.00 Per Year, or $2.00 for Three Years, Payable in Advance.

Volume VII. *Kansas City, Missouri, March 20, 1914* *Number 5*



Read The Special Subscription Offer On Page 23

BREEDING APPLIANCES OF ALL KINDS

The New NATURAL TEMPERATURE Semen Extractor

(Patent applied for.)

This is the latest improvement in capsule breeding. It has a soft metallic point which is absolutely necessary for getting the semen out of the uterus. It will stand bending 1,000 times without breaking. The natural body temperature can be maintained. More failures have been made from not keeping the right temperature than from all other causes, when healthy animals were used. After the semen is taken from the mare the long point is easily and quickly detached. The part containing the semen is then placed in the mare. This insures the proper temperature. This new instrument will be sold on a ten-day trial on all orders received before April 15. If the purchaser cannot get the semen out of the mare with this instrument during a ten-day trial, he may return it in good condition and get back the purchase price. It is very simple in its construction, and will stand continuous boiling. Nothing complicated; full directions accompanies each order. Remittance must accompany the order. Price, $6.00.

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This instrument has been used successfully by thousands of breeders. **Price $6.00.**

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Thermometer

Tested and used for keeping water at the right temperature. **Price, $1.00.**

Speculum

Fourteen inches long. Very necessary in making examinations. Made of the best copper and specially polished so that the light is reflected into the mare. Any part of the vagina or cervix can be seen with this instrument. It is easily inserted. The best speculum on the market. Every stallion or jack owner should have this speculum. **Price, $3.00.**

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A standard clinical thermometer used by veterinarians. A metal case which insures it against breaking, with chain attached which may be pinned to the vest pocket and carried with safety. Extra length, tested and should last a lifetime. **Price, $1.25.**

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The bulb impregnator is equipped with a rubber hose just like the ordinary impregnator which has been sold for years. It is not guaranteed to stand boiling. **Price, $3.00.**

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Guaranteed to hold and fit any mare. Made of the strongest material. Every breeder should have a set of these hobbles. Some mares are dangerous to breed without them. **Price, $4.00.**

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Three sizes, small, medium and large. Stallions weighing 1,200 to 1,600 pounds usually require a medium size. These bags are guaranteed not to tear from any cause, before March 1, 1915. If they do tear before that time, return the top part with our stamp on it and 50 cents in cash and we will send you a new bag. **Price each, $1.50.**

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THE KANSAS CITY IMPREGNATOR COMPANY

TWELFTH and CENTRAL STS., KANSAS CITY, MISSOURI

THE AMERICAN BREEDER

WITH WHICH IS COMBINED THE STALLION AND JACK NEWS

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VOLUME 7 KANSAS CITY, MARCH 20, 1914. NUMBER 5

PLANTING THE COLT CROP

Every mare of breeding age should be a producer. At least nature so intended. Somewhere along the line something has happened to a lot of these females. In many communities only about 25 per cent of the mares produce living foals. Figures were obtained from representative breeders from many sections of the United States a few years ago which showed that only one mare out of every three raised a colt to weaning age. The mares failed to get with foal, aborted or the colts died before weaning time in two-thirds of the cases.

Is this condition of affairs of enough importance for us to give it a careful study? The mares and their owners are usually to blame for this low per cent of foals, yet the progressive breeders must assume the responsibility of increasing the per cent of produce.

Only those who have traveled and observed closely over a considerable territory, realize the exact conditions. As a result of such observation we are prompted to make some very pointed statements. In this we seek only to bring about beneficial education, but we realize that some will be offended. Occasionally a pointed statement is necessary to cause an individual to think for himself. The special subject of breeding has received little attention outside these columns and our older readers. If there is a subject in American agriculture that should receive more thought it is the scientific mating of animals.

There are some who insist on having their mares teased to the extreme. If a mare is not in good heat there is very little use to make a natural service. The third, sixth and ninth weeks after mares have been bred should be watched carefully as it is possible to tease a mare hard enough to cause an abortion. The best way to tease mares is to have a hitch rack where all of the mares can be tied, remove all harness, including the bridle, tie the mare with a halter. Everybody should stay away from this mare for a little while to give her an opportunity to get quiet. The stallion should be led out behind this mare and the one handling the stallion should keep a close watch of the performance. Do not let the stallion get closer than 15 feet. If the mare is in heat she is very reliable to show unmistakable signs. In addition to that if she urintes and the urine falls straight down the chances are that it is a natural heat period. If the urine should fly back a considerable distance it is evidence that she is probably not in heat. The clitoris of a mare expands during a heat period, giving a wider space in the vulva for the escape of urine. If the mare is in heat the owner should be questioned as to when his mare had been bred. Occasionally a mare will show signs of being in heat, even though she is in foal. An abortion might result if bred while pregnant. Mare owners should also be questioned about abortion, as there is considerable contagious abortion throughout the United States this spring. This is conveyed from one mare to another through the act of copulation. All abortions should be watched carefully so as to avoid the spread of this disease.

Those mares which do not have colts by their sides at this time of year, and are not with foal, should be put off until later in the season. Those mares having colts by their side should have the preference. There is less risk to run with colts coming after May 1st, but mares having colts by their side should be bred, even though it be early. If they are not bred promptly at the right time, the milk supply may be stimulated to the extent that the generative organs will not be active later in the season.

There is usually a cause for mares not being with foal, at this time of the season. Every mare should be carefully examined so as to know what the difficulty is. Every stallion owner should study this problem and be able to give a satisfactory reason why a mare does not fertilize. Those needing treatment should be attended to before they are bred. There is very little use to breed, by any method, a mare which has a serious disease. No breeder should make a natural service on a diseased mare, as he is liable to convey the disease to clean, healthy mares by the penis of the stallion, and do much serious damage. The owners of good mares cannot afford to patronize the stallion owner that allows his stalion to serve diseased mares. Stallion and jack owners who have been making scientific investigations and refusing to breed diseased mares have greatly increased their per cent of foals.

There are many mares in every community that can be made producers with the capsule system, but it is not advisable to scatter diseases among the clean, healthy mares by making natural services on diseased mares. Some mare owners are greatly offended when the stallion owner explains to him that it would be dangerous to use a particular mare for the natural service. There are a lot of men in the breeding business who know very little about modern breeding. Quite frequently a breeder will do more damage in a community than he can possibly do good. Those men who do not try to learn, and who continue to scatter diseases, are a detriment to any community. The writer has visited many communities where good mares have been practically ruined from being served by a stallion which had recently served diseased mares. Every intelligent man knows that diseases are transmitted among humans and he should know that diseases among animals can be transmitted the same way. Some conditions are not serious while others are. Stallion owners must make a study of breeding mares; their patrons are looking to them for safety in this direction.

The stallion or jack which is required to make more than nine services a week (two one day one the next) is being bred too heavy. When too many services are made the owners of the mares make many unnecessary trips. If a sire does not discharge live spermatozoa at a particular service the mare will not get with foal at that service. A stallion or jack might make several services in one day and settle the last one. That particular mare may be a doubtful breeder also. This argument is frequently used to prove the fact that many services can properly be made each day. It does not prove anything. There is only one way to know just how many services a particular sire can make and that is with the microscope. In many localities the patrons are demanding a microscope, so that they may be satisfied as to the fertility of the sire. The

(Continued on page 22.)

An Answer to Many Inquiries

In order to be of much service a publication must be closely associated with its readers. This publication boasts of having the most loyal subscription list in the country. Our readers write us on subjects concerning the welfare of this publication. The principal subjects up for discussion during the last few months has been how to get new subscribers interested.

Since we have been advertising only our rate of three years for $1.00 an army of readers have informed us that they could not get enough new men to start with a three-year proposition. While our subscription books show this to be a record season for renewals, nearly every letter has requested us to make a short time subscription at the lowest possible price so that new prospective subscribers could be interested. Not a single one of these writers has mentioned anything concerning a short time rate for his own subscription. All are anxious to widen the circulation among their friends and customers. These men have stated that if they were given an opportunity to take subscriptions at a low subscription price for one year that they would not have any difficulty in renewing these subscriptions next time for a three-year period.

It is our desire to establish the three-year term for all subscriptions in the near future. Many of these breeders have stated that in making this introductory offer provision might be made to skip the summer months as most of the farmers are very busy and would not care to read much any way during the summer months. Not a single one of these inquiries have asked for any commission. This shows their earnestness in this cause. Some have said that they would like to have a proposition whereby they could keep enough out of the subscription to pay the postage. To show the earnestness with which these requests have been made a good number have guaranteed to get us at least 100 subscriptions during the coming breeding season.

We deeply appreciate the interest manifested in the general welfare of this publication. We are glad to make mention of the fact that our readers have appreciated our effort and realize the necessity of giving the information to their friends and neighbors. Men who are enough interested in the improvement of live stock to introduce the proper kind of literature into their neighborhoods deserve much credit. They are certainly to be commended for this unselfish attitude. We have given their statements careful consideration and have decided to co-operate with this great family of progressive men who are doing so much for the best interests of the live stock industry. We accept the co-operation of these men and as soon as conditions are known we believe thousands of others will join them. Every reader is authorized to take subscriptions on the following basis:

As an introductory offer (in force until June 1st) any of our readers may send us subscriptions at the exceedingly small price of 25 cents for the year, excepting the months of June, July and August. These subscriptions will start as soon as received, but will be discontinued through the months of June, July and August and will start again the first of September. Each subscriber will get the paper nine months of each year. Every one sending in subscriptions shall keep out enough money to pay the postage. We cannot pay commission to anyone. We have made this price exceptionally low for this trial subscriptions campaign. The rate of $1.00 for three full years is still in force for anyone who wants it.

ANSWERS INQUIRY ABOUT NATURAL CONDITIONS.

To the American Breeder:—In reply to the inquiry of Chester A. King, I will say that on the range, mares mature at an earlier age than when raised under "unnatural" conditions. A colt usually sucks its mother until she has another colt, giving it a good growth at one year of age. Many times the fillies become with foal at two years of age; sometimes even before they are two years of age. The age of puberty, or age at which impregnation can occur, is from one and a half years to two years of age, and as most of the range mares are pretty well developed at an early age, they are probably just as capable of producing a colt at three years of age as they would be at five or six.

I believe a large, well matured filly should be bred to produce a colt at three years of age, provided she isn't to be worked as a three year old. Some of the best brood mares I ever saw were bred at two years of age. They are rather difficult to get with foal at two years of age and seem to be rather hard as three year olds. I believe it is a good idea to breed a young filly to a jack the first time, as the colt will be smaller and foaling will be easier. As the colts from young mares are not as good as subsequent colts, it could not pro-create any of its faults or bad points of conformation, though, as a rule, the colts I have seen from a three year old mare were as good as those from older mares.

I am not able to give the per cent of two and three year olds that will get in foal, but know that it is smaller than in older mares. There is no definite age at which a mare will cease to be fertile if not bred. I have known mares 14 years old that could not be gotten with foal and I know of one mare that was 19 years old last year, had never been bred, that was given one service and shows safe in foal; she is due now in a few weeks. As a rule, I believe they will be found hard to get with foal after 12 years of age if they have never been bred previously. A mare seems to be able to produce a definite number of ova. If she is not bred and has a period of heat every three weeks, the ovary seems to stop production of ova after the mare reaches the age of 12 or 14 years. There are, of course, exceptions, as I have already stated, but I think everyone will agree that an aged mare that has never produced a foal is very hard to settle. That is my idea of breeding a filly young when she is to be used as a brood mare. If she is bred young and gets with foal every year, the supply of ova seems to last as long as the mare does, but if she isn't bred until late in life the production of ova stops while the mare is still good.—D. H. Bibens, Pawnee County, Kans.

ELEVEN COLTS FROM TWO COVERS.

To the American Breeder:—We are using the Capsule System as taught by the American Breeder and will say this for it; if we were compelled to go back to the old way (natural service) we would quit the business. As it is we are doing fairly well, have two horses instead of one this year. Will bave lots of the capsule colts to show the "Doubting Thomas."

Last year was out first year with capsules. We will give you one of our experiences during the season last year. On one day we served 17 mares from two covers from our horse, foaled 12 of them, will get 11 colts. One of the mares lost a colt from getting kicked. You may refer any one to me that is in doubt about adopting this system. It is the greatest boon of the century to breeders, both mare owners and stallioners.

With best wishes to the American Breeder and hoping that you will continue with your great work, I am, C. M. Stamps, Upshur County, Texas.

The Fundamentals of Breeding

LESSON I---REPRODUCTION

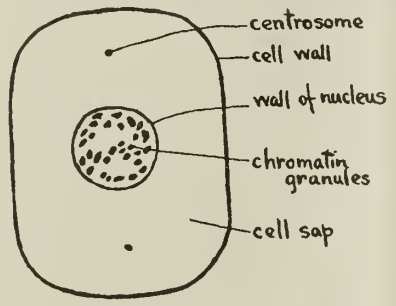
By H. W. VAUGHAN

Iowa Agricultural College

Knowledge of the process of reproduction is of fundamental importance as a basis for understanding the laws of inheritance. In this, the first of several brief articles on animal breeding, the foundation is laid by explaining what takes place when two animals are mated and produce offspring.

When a mare is bred to a stallion or a cow is bred to a bull, no offspring will result unless a minute germ cell called an ovum or egg is discharged from the ovaries of the female. This usually occurs at the close of the period of heat. In those animals which normally give birth tc a number of offspring at one time, as in swine, several ova are discharged from the ovaries at one time.

Offspring will not result unless the male is fertile. If he is fertile he will introduce into the womb or uterus of the female thousands of tiny germ



Structure of the Cell.

cells which are much smaller than the ovum of the female. Under the microscope these germ cells of the male look very much like tadpoles, for they are provided with a tail by means of which they swim actively through the fluid which surrounds them. These male germ cells are called spermatozoa, a single cell being called a spermatozoon.

An attractive force exists between the male and female germ cells, and the spermatozoa swim toward and cluster about the ovum. The ovum is much larger than a spermatozoon because it contains a considerable store of yolk or food materials and the spermatozoa contain no yolks. When one spermatozoon succeeds in piercing the wall of the ovum, fertilization occurs and the attractive force no longer exists.

This fact should be remembered—that only one spermatozoon joins with the ovum and when this occurs the life of a new animal begins. Nature provides an immense number of spermatozoa in order to insure the act of fertilization. The female produces one or a few ova at a time richly stored with yolk. Thus there is what might be termed a "division of labor" between the germ cells of the two sexes.

An important fact which may be mentioned here is that the number of pigs in a litter is limited by the number of ova discharged from the ovaries of the sow during the period of heat. The boar does not affect the number of pigs in the litter because every fertile boar produces thousands of spermatozoa at each service.

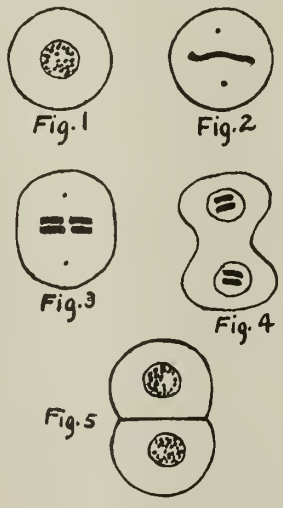
The two very minute germ cells which unite to start a new animal carry the inheritance from the male the female and their ancestors to the offspring. The student of animal breeding is therefore interested to know what is the structure of these germ cells and what part or parts of the cells carry inheritance. Since the perfection of the high power microscope the scientist has determined the structure of the cell and is now prepared to render some valuable assistance and advice to breeders of plants and animals.

All cells, whether germ cells, nerve cells, skin cells, or blood cells, are very much alike. They differ somewhat but have the same general structure. The cell is a small mass of living matter, called protoplasm, which may or may not be surrounded by a membrane called the cell wall. In the center of the mass is a spherical part or body called the nucleus which is also enclosed in a membrane. The nucleus is the essential and vital part of the cell. That part of the cell which lies outside the nucleus is called the cell-sap. In the case of the ovum the cell-sap is charged with granules of yolk.

The nucleus of the cell contains a number of thread-like or rod-like bodies called chromosomes. They are composed of granules of chromatin matter. The chromosomes are very important. Their number is always even and always the same in any given species of animals, but varies somewhat in different species. In the simplest animals, such as some species of worms, there are only two or four chromosomes in each cell nucleus. In the higher animals there are 12, 16 or 24 charomosomes in each cell nucleus.

The small drawing accompanying this article shows the general structure of the cell. The drawing shows what is called the growing stage of the cell, the chromosomes being broken up into granules of chromatin matter.

As cells grow and divide the nucleus passes through a regular series of changes. First, the chromosomes break up into granules (see Figure 1 in the diagram illustrating cell division). Then the amount of chromatin matter increases and the cell grows in all parts. Next, a single long thread of chromatin is formed from the granules and the wall of the nucleus disappears. (See Fig. 2). Then two small bead-like bodies, called centrosomes appear at opposite ends of the cell and the chromatin thread splits lengthwise and crosswise so as to produce double the number of chromosomes common to that species of animals. (See Fig. 3). In these drawings we have as



Illustrating Cell Division

sumed for the sake of simplicity that the usual number of chromosomes is only two. Half the chromosomes are drawn to one centrosome at one pole of the cell, and half to the other. The entire cell is constricted through the middle so as to give it the shape of a peanut. (See Fig. 4.) Then a dividing wall is thrown across through the cell and the process of cell division is completed, two cells being formed from the one previously existing. (See Fig. 5.)

By a similar process these two cells again divide to form four cells, and these form eight, and so so. It is by just such a process that the embryo foal, calf, or pig is developed from the fertilized egg in the uterus or womb of the mother.

Germ cells differ from other cells in one important point; namely, they contain just half the number of chromosomes found in the body cells of the animal. If this were not true the fertilization of the ovum by the spermatozoon would give to the fertilized egg twice tthe right number of chromosomes, and in successive generations of animals the number of chromosomes would continue to double and redouble. When the cells of the testicles and ovaries divide to form spermatozoa and ova respectively, the chromosomes are not double in number just before the cell divides (as in Fig. 3), and there is no preceding period of growth (as in Fig. 1). Hence when a cell of the testicles divides to form two spermatozoa, or when a cell of the ovaries divides to form two ova the germ cells which are thus formed have just half the usual number of chromosomes. Then when the ovum and spermatazoon unite in fertilization the correct number of chromosomes is again established. These facts should be remembered, for they explain Mendel's law of inheritance which will be discussed in the next of these articles.

What part of the germ cell carries inheritance? There are a large number of facts which show that the chromosomes are the carriers of inheritance. The best evidence of this is furnished by the fact that the chromatin is the only cell element equally represented in both the ovum and spermatozoon, and, as we have seen the chromosomes undergo a regular and precise process of division when ever a cell divides, while the cell-sap is divided in a rough and comparatively careless manner.

NEW YORK AND UTAH THINK ALIKE.

To the American Breeder: Pleas find herewith my remittance of $1.0 for three years' subscription. You sa on your card of February 2 that yo do not want to force the paper ont me. I wish to say right here I don' believe you have to force any man t renew his subscription, as I conside the American Breeder the best pape of its kind published, and would no be without it if it cost me $5.00 year. Thanking you for your notice, am yours truly.—C. H. Karlnoskie, Li ingston County, New York.

To the American Breeder: I ce tainly do not want to miss an issu and enclose check for three years' sul scription. I have several times i tended to write you, not only to offe suggestions on some points of interes but to specially commend the excelle work you are doing. Am sorry we liv too far away to avail ourselves of th benefit of the Breeding School. Yo may hear from me later.—James D vine, Salt Lake County, Utah.

ANOTHER WAY TO LOOK AT TH STALLION SHOWS.

To the American Breeder:—As t the rating of the Suffolk stallions, think they have placed the stallio in the right place. How much fc Entry No. 2 cut? Would like to g the address of the man that own Entry No. 1. If he has mares as goo as his stallion, would like to get stud colt from him. After you have ha all your "Stallion Shows" then let u have the "Mare Shows." Then w can hang the pictures of the stallio and mares up for comparison, an know where to go to find the goo ones.—Chas. W. Stewart, Washingto County, Iowa.

Diagnosing Ills of Horses

LESSON II---Temperature, Pulse and Respiration.

The normal temperature of a horse's body varies but little from 100 degrees Fahrenheit. The regulation of the body heat in horses is preserved at a pretty uniform point because of the fact that such animals are plentifully supplied with sweat glands, and through the activity of these glands with accompanying vaporization of the moisture, the heat of the body is kept at a rather fixed point. The process of digestion, through development of energy within the body, or changes induced by exercise may have the effect of increasing more or less the temperature of the body.

It is always important to know the exact temperature of an animal suspected of being ill, so as to take into consideration the problem of fever. Fever may be said to be an abnormal elevation of temperature above that which is natural to a particular species of animal. For all practical purpoess we might say that an elevation above 101.5 or 102 degrees in the horse could be called fever. The temperature of an animal is obtained by inserting a clinical thermometer into the rectum where it is permitted to remain about two minutes. The column of mercury will rise and remain stationary at the high point, and will have to be shaken down below 100 degrees before it can be reliably used on another animal. The practice of inserting the finger into the mouth for the purpose of estimating the temperature was in vogue before the invention of the clinical thermometer. A knowledge of the exact body temperature is very important, inasmuch as many animals, even though very sick with some febrile disease, will not betray the seriousness of their ailment through the usual clinical symptoms.

Every febrile disease, when it runs a typical course and is free from complications, adheres quite closely to a certain range of elevation of temperature. That knowledge aids materially in the diagnosis. While high temperatures are for the time being more destructive on account of combustion being greater, yet it cannot always be said that these diseases characterized by high temperatures are on that account more fatal. As a rule, the high temperature diseases of the non-infectious class incline to run a shorter course and when recovery occurs it is more prompt and complete.

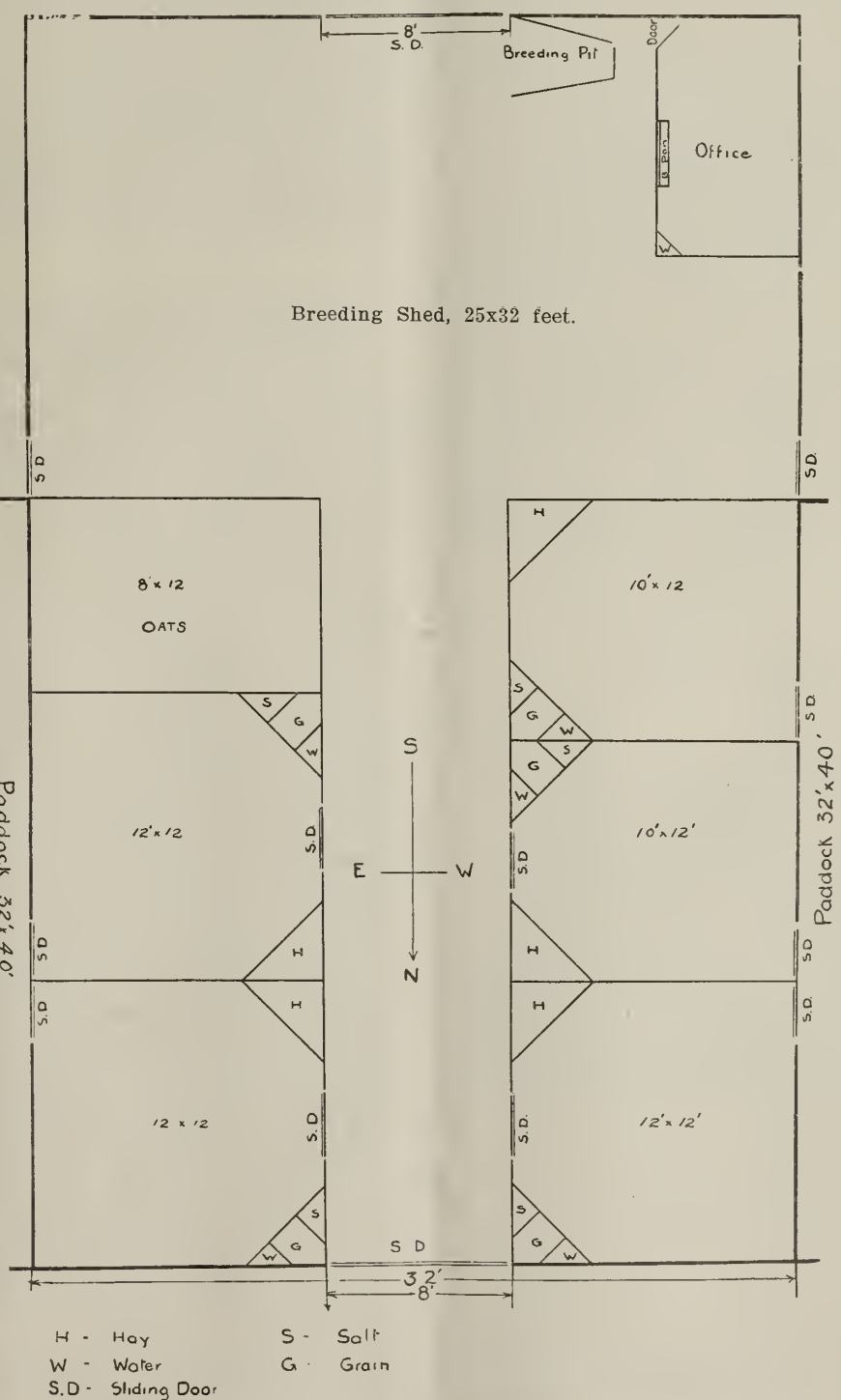
It should be stated that the reference to normal temperatures does not apply to the very young animal. The newly born foal may register a temperature three or four degrees above that of an older animal and the colt will be several months old before it will register 100 degrees. Whenever the temperature of an ailing suckling is taken it is a good plan to take the temperature of a well colt of about the same age if possible, so as to give an opportunity for comparison. Animals that are prostrated with heat often show a temperature as high as 110 or 112 degrees.

Animals are subject to a great number of diseases that are not inflammatory in nature, therefore do not produce a rise in temperature. Perhaps the largest and most frequently encountered group of this class are those of derangement of the digestive organs. As a rule, it is only when this class of diseases provoke severe pain, causing the animal to take active exercise, or develop into inflammation, that an elevation is shown. Temperatures below normal are occasionally encountered, particularly in old animals or such as are suffering from brain diseases. Severe hemorrhage or approaching death may produce a like condition.

The pulse is the most reliable index of the character of the circulation of blood throughout the system. It tells of the condition of the heart because it is produced by the action of that organ. The blood stream is the great channel through which nutrition comes to every organ and tissue of the body and is likewise the great stream through which the waste is carried to special organs provided for the elimination of such waste. In order that the several organs composing the body may properly carry out their functions they must be supplied with vigorous, healthy blood, and it is the mission of the heart to force this blood to every part of the body so that normal activities may be maintained. If the heart is in itself diseased or is weakened by blood circulating through it that has become contaminated from disease of some other organ, then the province of a healthful blood supply is endangered.

The pulse in the horse is usually taken at the lower jaw just at the point where the artery passes around the bone. At this point the vessel may be compressed against the unyielding bone with the fore finger and the pulsations counted. These pulsations or waves correspond with the beating of the heart.

In a normal horse they range from about 34 to 44. If an animal is exercised even moderately it will have the effect of increasing the pulse rate several beats. If the pulse is strong, that is, can be felt easily, it is evidence that the heart is in good order, provided it is running near the normal rate. A weak pulse is an indication of a weak heart, and the general rule is that as the heart weakens, it increases in activity. In other words, a weak heart attempts to carry on its allotted work by working faster, so that very frequently in disease its activity is doubled. This rapid action is necessarily damaging to the organ, for the reason that increased activity lessens its period for rest and recuperation. There is a certain lull in the action of this organ when working normally that is known as the rest period, and the opportunity for rest is lessened in proportion to the rapidity with which it labors. In exhausting diseases the heart frequently is so weakened that the pulse cannot be felt at the jaw. In such cases a count of the heart beat may disclose a rate of one hundred or upwards per minute. Such cases are very serious and if this condition continues for any length of hours without relief it will quite likely result fatally. An imperceptible pulse is not necessarily fatal but it should always be regarded as a very serious symptom in any disease.



PLAN OF THE BREEDING BARN OF S. S. MOUSE, LINN COUNTY, KAS.

Experience teaches that a certain quality of pulse is inclined to be associated with a disease of a certain class, as, for instance, a painful disease inclines to produce a pulse that can be readily distinguished, and as in case of laminitis it is quite inclined to be full and even bounding. A soft pulse that may be easily compressed generally signifies involvement of the mucous membranes, such as a catarrhal condition of the bronchial tubes or bowels. A hard, incompressible pulse is more indicative of pleurisy or an inflammation of the outer covering of the bowels or lining of the bowel cavity.

A close relationship exists between the pulse rate and temperature. An increase in temperature generally carries with it proportionate increased heart rate. An increased pulse rate, however, is not necessarily a sign of elevation of temperature. In the event that the heart is very rapid, say 90 or 100, and only a moderate rise of temperature has taken place it is quite good evidence that the heart itself is diseased or is suffering from the effects of intoxicating blood circulation through it.

The significance of pulse and character of heart action is to be closely studied and taken into account, for the state of the circulatory system has much to do with the outcome of a case. It is only by repeated practice that one learns to interpret the meaning of these two important factors in diagnoses.

A horse standing quietly breathes only about 12 or 15 times per minute. Exercise will increase this rate perceptibly. The rapidity of the respiratory movements is, like the pulse, influenced by the temperature and inclines to keep pace in the same way. Respiratory movements are governed considerably by climatic conditions. Rarefied air increases respiratory activity as does also warm humid atmospheric conditions.

Fever and exposure to heat have a decided influence on the respiratory rate, both increasing it. In either case, a high fever or exposure to hot sun might cause the animal to breathe as much as 50 or 60 times a minute. Whenever the breathing organs, such as the lungs, are involved the rate is increased, as a rule, over what it would be were they not involved. There are so many influences that will cause a horse to breathe rapidly, such as being too fat, exposed to hot sunshine, blanketed too warm, and so on, that may have no relation to the disease, that it sometimes becomes a point of fine distinction to explain just why the animal is distressed in this particular. The relation distressed breathing bears to the disease from a point of seriousness is determined in a great measure by discovering the cause of the distress.

Ordinarily the three factors of temperature, pulse and respiratory movement preserve a fairly uniform relationship to one another in diseases that run typical courses, and it is generally apparent to the inquiring individual when this relationship is disturbed.

THAT IS THE WAY IT WORKS.

To the American Breeder:—Please send us your bill for the ad you have run for us and we will remit by return mail. You can also stop the ad as we are sold out. Many thanks to the Breeder.—David Cooper & Sons, Harper County, Kans.

SELLING TO BOTH SIDES OF CONTINENT.

To the American Breeder:—I am making some good sales. Sold seven head the 9th and 10th and four head March 5. Am shipping a horse today to W. A. Watkins of West Winfield, New York, and one to Gallahay Bros., of Richfield, Washington.—M. T. Bernard, Hall County, Neb.

THE AMERICAN BREEDER

With which is combined
THE STALLION AND JACK NEWS.

A Journal of Live Stock Improvement and Modern Breeding Practices.

FRANK B. GRAHAM and T. W. MORSE, Editors.

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CLEAN UP THE PREMISES.

It will soon be time for the flies to put in their appearance. If there is a molasses barrel in the vicinity, flies can be found assembled in that locality. Everyone has noticed the result of such attractions. Those not wanting flies on their premises should remove such attractions. All filth should be cleaned up. Take the manure to the field where it will have some value. The quicker this is done the greater fertilizing value it will have.

Nature will do much in the cleaning up process but to have the best results the one who occupies the premises must perform his part of it. The fly is one of the greatest disease carriers known. He is not particular where he walks. He may have deadly germs on his feet and walk right into the house, on the table or other places where disease germs are equally unwelcome. A little time spent in cleaning up the premises has great value. It can prevent sickness, enrich the soil, and create a better appearance around the place, which is a business getter.

Mares should not be bred in a dirty barn, even with natural service. A lot of mares fail to get in foal because they were served with a stallion in a dirty barn. If the average breeder would take culture tubes and place them in a barn of this kind and watch the results a few days later he would be wonderfully surprised. Some breeders may say that there isn't much dust flying as there is no current of air, and this condition is harmless, but there are small particles of dust so small that the eye cannot see them. If these carry disease germs they may enter the mare during the act of copulation, and prevent conception. Very frequently a breeder will have a large shed with manure a foot deep all over it, which becomes pulverized very finely and fills the air with dust. This manure would have great value some other place, but it is a detriment in a breeding barn. Those who expect to be proficient and get results must clean up their premises.

FARMERS MAKE OFFICE SLAVES.

A short time ago the writer chanced to meet a number of boys who were going home from a country school house. During the conversation these boys were asked what they expected to be when they were men. One of them said he wanted to be a bookkeeper, another a stenographer, still another wished to be a big man in the city and so on. All of them had their mind fixed on some big job in the city. The writer asked these boys why they had figured on going to the city. They said that their school teacher had told them about the big jobs they could get in the city, and their father had encouraged them to be bigger and better men than he was because he was in a position to give then a good education. In fact, one of them remarked that he did not want to follow in his father's footsteps who had seen the hardships on the farm. This is the education that is causing our young men to hurry to the cities for these occupations which have been held out to them as the greatest of all inducement.

These fathers should pay more attention to advice of this kind; as the boy is started, so shall he go. It is true that many of the most prominent positions in all the large cities are occupied by country boys, but the majority of them find their way into some smaller job which affords a very scant living and little time for recreation. The average young fellow who finds his lot cast with such close confinement no chance for advancement soon realizes his great mistake. Go into any large city and talk to the men who have clamored for the white lights of the large city and nine out of ten will tell you that they would have been better off, physically, financially and morally had they stayed on the farm. The great difficulty with these men is that after they have made their family ties and formed their habits they are not suitable for farmers. They have learned to spend their money as fast as they get it.

The amount of their salary is usually their guide to the expense account. Their salary is small, and the grocery bill is usually the bill which is reduced to fit it. In other words, there are numerous things in the way of "appearances" that must absolutely be met in order that they hold their positions. There are thousands of young men holding these city jobs that are living on very small rations, yet they are compelled to make a good appearance or they would not last very long in such positions. If fathers and mothers knew the exact conditions in the large cities they would not be clamoring to send their boys and their girls to these business colleges and such places where they would be made prisoners in these small, close offices. The young fellow who has been raised on the farm with plenty of exercise, nutritious food and fresh air can stand much of the abuse, but it will finally tell on his constitution. The city jobs are getting harder to find each year and the ordinary salary is being diminished, while on the other hand the demand for intelligent farmers is increasing each year. The greatest education that farmers can give the boys and their girls is to teach them how to farm and raise live stock. Every day one hears some fellow say that if he had the opportunity his father had he would make barrels of money.

There are more opportunities today in this country than ever were known before. If the young men will learn how to raise two ears of corn where one formerly grew he will be an advantage to that community, himself and following generations. The food problem is more serious in this country today than it ever was before. The great army of immigrants who are constantly taking up their headquarters in the large cities only adds to this demand. The best thing that can be done in this country is to encourage our young folks to stay on the farm, where the greatest opportunities await them—financially, physically, and morally. The average young fellow who has been raised in the country knows very little about immoral conditions found in large cities. They cannot even make a good guess at the exact conditions.

SHOW THIS TO YOUR WIFE.

A department for women makes its first appearance in our next issue. We have many requests for such a department but have been more influenced to take the step, by the evident interest which many women took in the paper just as it was. Absolutely some of the best encouragement we have had and some of the most appreciated commendation we have received has come from women. The American Breeder has been a man's paper; it was started and developed to give men knowledge of a business for which there was practically no other printed information, and to help them be honorable, self-respecting and independent in their business. When thousands of women the country over have taken to reading such a paper, and have seen fit to indorse their husbands' and sons' loyalty in many ways we are going to make the paper worth more to them if we can. Such women demand something more serious than fancy work and cake frosting and our aim is to make a department that will meet their demands. With this introduction we will let it speak for itself. Suggestions and criticism are always invited. We expect to keep improving it.

DO NOT ASK TOO MUCH.

We are very glad to accommodate our friends and do anything within the bounds of reason. We appreciate the great confidence that our readers seem to have in our editor. Going back over the last 30 days a statement of the requests made of us will show why it is necessary to make a few statements concerning these facts. A breeder in Nebraska instructed the editor to buy a Percheron stallion for him. One Colorado man and a breeder from Oklahoma sent in orders for jacks. One of our Montana friends notified him that a consignment of geldings would be made to him in a few days. Another man sent in an order to buy a team of work mules. A Minnesota friend wrote that he would send a consignment of mules. Another customer of this paper sent a message a few days ago that he was shipping a carload of stallions and jacks through the city and for him to assume the responsibility of the transfer and give the stock feed, water and other necessary attention during transit. A New Mexico friend sent in an order for eight registered Hereford bulls. Numerous requests have come to buy pure bred females of different kinds. The editor has been forced to decline most of these jobs for a lack of time. During past years many such orders have been filled, all of which seem to have been satisfactory, but it is a wonderful responsibility to make these purchases and make them satisfactorily. Many of the requests have not been plain enough. The one who expects to use such stock should have much to say and do with the particular requirements, especially of breeding stock. It is not a pleasure to have to refuse to comply with these requests from friends, but in our particular case it is not justice to the remainder of our readers. Requests such as we have mentioned do not call on us for as much time as does the demand for personal replies to letters received at this office. Hundreds of letters are received in this office requesting an immediate reply, on matters of the most vital importance. It is practically impossible to maintain a bureau of information capable of answering these questions immediately. The majority of these requests require more or less thought and investigation. The very fact of the inquiries coming to a place of this kind is evidence that special information is wanted; otherwise the inquiry would be satisfied nearer home. It would not be so serious to reply to any one letter or a score of letters, but these requests for personal replies are growing, and in justice to our thousands of other readers who observe our rule to ask for answers only through the paper, we must decline to answer these special inquiries by letter. We maintain a question department in which they will gladly be answered. We want these questions for the benefit of all our readers. We wish to thank those who have made these special requests for the confidence they have shown in us, but under existing conditions we will be compelled to refer all inquiries to our question department.

DID YOU ORDER A BINDER?

Several hundred subscribers are waiting for American Breeder Binders, which we supposed we could send to them soon after their orders were received. After we had been waiting a week, expecting every day the binders would be delivered, we got word from the factory that "shipment would be made in ten days or two weeks." That time will be up soon after this paper goes into the mails, and we hope to have all orders filled by the 25th. This is probably the only order we will place with the factory this year, so those who want binders should order at once and take no chance of being too late. One of these binders will last 10 years with proper care, and one particular paper saved where it can be found when needed might easily prove, at any time, the means of saving an animal.

Thanking all of the many who have patiently waited for some word from their orders, we are, Graham Pub. Co., 225 West Twelft Street, Kansas City, Mo.

ADVERTISING ONE THING WELL.

In a letter dated March 9, A. F. Hughes of Sherman, Ill., writes as follows: "Please find check to cover my bill. Pardon delay as I have been so busy answering inquiries from the ad that I had no other time."

Mr. Hughes used five inches of space in one issue, paying $11.25 therefor. The advertisement that brought the big inquiry included a cut of the horse that was advertised, an interesting description and the price. One or two issues before this advertisement was run, J. E. Stegman of Clifton, Kans., had a similar advertisement in our columns, giving a photograph of the stallion he was offering and full information about it. He made a sale almost immediately from this ad.

In both cases the horses were light harness horses—a class not nearly in so great a demand among our readers (who represent farm requirements, chiefly) as are draft horses, so we believe the use of cuts in making an attractive, definite advertisement paid these advertisers well. We do not suggest this as a good thing to do generally, because if the paper was full of these illustrated advertisements they would not possess the same distinction that they do when only a few occur. Of course it would make the publisher much more money for the time being. In the long run, however, the policy which will make us the most money will be to keep the welfare of our readers always uppermost in our minds.

Stallion Service Record Book

This book has 200 pages like the specimen page in this ad. It is substantially bound with a good, strong waterproof cover. It has 20 index pages for keeping the owners' names in alphabetical order so that any name or mare can be found quickly.

The breeding contract at the bottom is the strongest possible kind of a note. It is a big help in making collections, as nearly every state has a law for the collection of labor debts without exemption, and this is a contract to pay for services rendered. Before it is signed run a pencil through two of the lines in the contract, leaving the line that makes the kind of a contract you want. Many will sign a contract who would refuse to give a note.

This book has a calendar and a gestation table. It can be used for several sires without carrying more than one book. This is the most complete and up-to-date service record book printed. It is a nice size and can be carried easily in any pocket. Every breeder should have one. After improving it for several years, the result is this most satisfactory book. A complete new edition is just out. Although this new book has double the capacity of those offered heretofore, it sells at the old price. It is not bulky as it carries no advertising or other unnecessary matter. It will be the standard record book used by the leading breeders.

If you are not satisfied with the book or do not consider it the best and cheapest on the market, return it and your money will be cheerfully refunded. The price is 50 cents; six for $2.75; postage prepaid. Send all orders to the

Graham Publishing Company

225 West 12th Street, Kansas City, Mo.

Sire Lucifer

Mare Belle Color Gray Age 6

Marks Left front foot white

Womb {Closed / Healthy / Loose} Height 16 hands Colt {Yes / No}

Mare Owner John Brown

P. O. Kansas City, Mo.

Capsule

DATE BRED.

Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1									
...	...	...	...	...	...	...	...	...	...
22									

RETRIED

	15								
...	...	...	...	...	...	...	...	...	...
	22								

BREEDING CONTRACT

$15.00 Date Feb. 1, 1914

For services rendered, I promise to pay (fill in with stallion owner's name)

_____ or assigns fifteen dollars

~~When above described mare is known to be in foal~~

~~When above described mare delivers a living colt~~

When colt of above described mare stands and sucks

or before mare changes ownership, mortgaged or leaves county.

Signed John Brown

Page 16

Above shows exact size of page and the way to properly fill out the blank for one form of breeding contract, scratching out extra lines.

DEATH OF W. T. HEAD.

To the American Breeder:—I am very sorry to convey to you the sad news of the death of our old friend and classmate, in the breeding school, W. T. Head of Lizton, Ind. He had been ailing since November, 1913, with an affection of the skull for which he had been operated on four times. It was while working for him that I had such wonderful success last season, breeding as many as 18 mares from a single service. We had already arranged for me to be at his place Tuesday and Friday at 4 p. m. of each week during the coming season.

Mr. Head was a very successful farmer and stock raiser, owning one of the laregst and best farms in Henrix County. I saw him three days before he died, and although he was a member of no church, the spirit of conversion that he experienced while attending the religious exercises of our school, was the last thing he ever talked about to me. There he certainly experienced true conversion. He leaves a wife and three sons. He died February 27 and was 62 years old.—J. A. Hart, Clinton County, Ind.

BUYS A CHAMPION SHIRE STALLION.

Coleshill Diamond King, the champion Shire stallion of many shows, has been sold by Trumans' Pioneer Stud Farm, McDonough Co., Ill., to Harry S. Townsley, Green County, Ohio. A photograph of Coleshill Diamond King appeared in the American Breeder last fall in the first issue after this horse won the grand championship at the Iowa State Fair, which was the season's opening draft horse show of importance. In buying this horse, Mr. Townsley has made one of the most important draft horse transactions of the year.

AND NOW HORSE RAISERS HAVE A PAPER, TOO.

To the American Breeder:—From a small boy I always had a fancy for the horse and would search all the farm papers to gather all the information I could to learn more about our best friend. I soon saw there were special papers printed for most of the occupations on the farm. The poultry papers were printed in the interest of the poultry; dairy papers, farm papers, etc., but was never able to find anything that came near being an "ideal" horse paper until I got the American Breeder, and the greatest objection I have to the "Breeder" is that it is only printed semi-monthly. Wish I could get it every week. I read all that is in it—the advertising and all, and file them away and go through them at leisure. I am with Mr. Hawkins of Livingston, Mo. My order is in for a good binder. I would like to see the American Breeder in the home of every family in the United States and Canada; I think people would soon get out of the rut and give the scrub stock a wide berth.—H. F. Wise, Alberta, Canada.

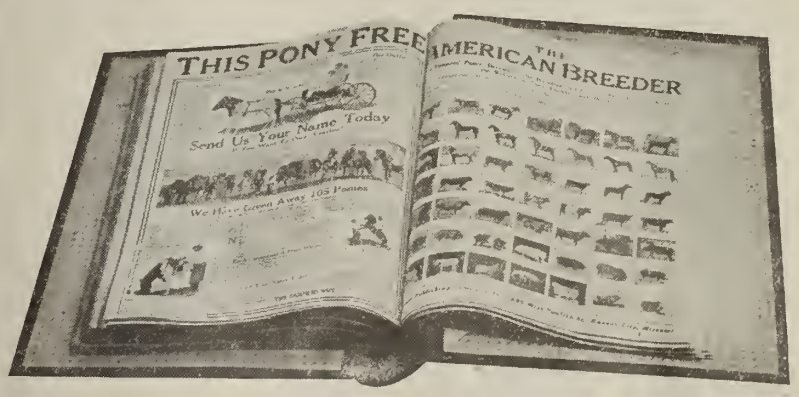
Read the Special Subscription Offer on Page 23. It Closes Soon.

GET THIS AMERICAN BREEDER BINDER

Hundreds of our readers write us that they save their papers, and that the many articles and the Questions and Answers thus preserved make them a breeder's reference library they could not get any other way "for love or money."

HERE IS THE BEST WAY

to have such a store of information where it can always be reached.



Send to us for one of the American Breeder binders pictured above. We had two of these binders made for our own use two years ago, and the one shown in the photograph has been in daily use ever since. When the photo was taken it contained 50 copies of the American Breeder, with room for many more. The covers of the binder project beyond the edges of the pages and protect them perfectly. A minute's time (anyone can do it) is all that is needed to fasten each paper securely in its place in the binder.

We are having a special lot of these binders made up for our subscribers and will send them, by Parcels Post, Prepaid, at $1.00 each. Address orders to

GRAHAM PUBLISHING CO., 225 WEST 12TH ST., KANSAS CITY, MO.

Live Stock Market Review

In the past two weeks, prices for horses and mules have fluctuated $10 to $20, or nearly as much as the extreme movement in prices within a year past. Such a condition was clearly the effect of the weather, and while the market now appears more settled it is not entirely free of nervousness. Eastern buyers were practically laid out of the market late in February and early in March. Three storms of great intensity visited New York City in that time, and demoralized all traffic, and left lasting damage. The city up to the middle of this month has not fully recovered. Under such stress conditions, scalpers at the market usually buy freely, but in the first week this month they did not operate. Country buyers made use of temporary depression in prices and exaggerated conditions to sellers. The best way to characterize the trade of the past two weeks is by interrupted demand.

The East will have need of so many horses, and each delay in obtaining its alloted number means active buying later. In the past two days, heavy drafters and chunks sold readily, and it looks as though the next ten days will obliterate all of the dullness. Choice horses are not plentiful and there is no reason for them to sell lower when demand has a free chance to exercise itself.

Southern districts are not buying as freely now as a month ago, and the most urgent orders seem to have been filled. However, that trade is handled through buying firms, which at this time are fairly well supplied. As soon as they sell off they will be back in the market again. Dealers expect some southern trade up to the first of June

Farm trade is broadening. The demand from such sources takes the widest quality. Some farmers demand the best in both horses and mules, and others look to low first cost. The former class figures high priced kinds the cheapest in the end, and the latter class claims high first cost is a burden. When fair demand is well started, therefore, it will furnish an outlet for all classes. Plugs and common horses have been in fair request as there has been some city trade in that class, and foreign truck gardeners near cities are also buying. That trade, however, is the most uncertain of all, and the general experience of sellers is that there is no real competition.

Fewer horses and mules are being received at principal markets now than a month ago or a year ago, and the large demand the first few weeks of the year has reduced the available supply materially. The bulk of the supply from feed barns, especially mules, has been marketed. The rush of spring work will soon add another restriction to free marketing.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, as as follows:

Drafters, 1700-pound up	$215@275
Drafters, fair to good	145@210
Chunks, good	150@180
Chunks, fair.	90@145
Southerners, good to choice	125@145
Southerners.	80@120
Driving horses.	65 up

Mules—

13½ to 14½ hands	$100@140
14½ to 15½ hands	135@170
15½ to 16 hands	165@215
16½ or better	200@285

Cattle Prices Higher.

In the past two weeks river markets have developed an advance independent of Chicago that carried the market into new high positions for the year and to new high record prices for March. Chicago has been top heavy because she is receiving as many cattle as a year ago and reports state that the offerings are killing out well. In view of this condition, river markets are receiving some cattle that under normal conditions would have been marketed in Chicago. Western grades fattened on feed other than corn are the principal supplies at river markets. The shipping zone has broadened to include the entire mountain feeding sections, and beet pulp and hay fed steers are plentiful for this season of the year. In the past two weeks in Kansas City, grain fed steers sold as high as $9.25, and on the quarantine side up to $8.25; those are new records for March at this market. In Chicago the top price last week was $9.65, or 10 cents under the new record price of the preceding week. Meal fed and western steers sold at $7.50 to $8.50. The clean up in Chicago territory is in progress, and when that supply is done, prices are expected to go still higher. Killers are worried about the supply of prime light weight cattle for April and May. According to reports, few will have full fed prime yearlings to offer and demand then is usually urgent. Shipments of hay fed cattle from Montana, Wyoming and Idaho will continue for some time, and a good many meal fed steers will come from Texas and Oklahoma.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.10@9.50
Good to choice steers	8.50@9.05
Fair to good steers	8.00@8.45
Common to fair steers	7.00@8.00
Meal fed, choice	8.25@8.80
Meal fed, common to fair	7.25@8.20

Scarcity of Butcher Cattle.

Trade in butcher cattle has been active, owing to an increasing shortage in the supply. Prices are 15 to 25 cents higher than late in February. Prime cows are selling at $7.50 to $8 and prime heifers up to $9.25. Killers say that they are unable to get enough butcher cattle. Most of the offerings have been in the half fat stage, and many of them would not have been marketed had prices been lower. Country reports indicate that there are few heifers, and steers and heifers mixed are fed for April and May markets. Most of the cows coming now are from dairy districts. Veal calves were quoted off 25 to 50 cents. Bulls are in active demand at firm prices.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice.	$7.50@ 7.85
Good to choice	6.65@ 7.45
Fair to good	6.00@ 6.60
Common to good	5.25@ 6.00
Canners.	4.50@ 5.25
Heifers—	
Choice.	$8.50@ 9.25
Good to choice	8.00@ 8.45
Plain to fair	6.75@ 7.95
Common.	5.75@ 6.75
Veal calves.	6.00@10.50
Bulls.	5.00@ 7.75

Unsettled Feeder Market.

After ten days of unusual activity in the stocker and feeder division, the market in the closing days of last week became unsettled and the advance that showed early last week was lost. However, this appears as only a temporary decline, as commission men report increased inquiry as to supply and market conditions. There is yet a large number of cattle needed to care for this summer's grass and to fill in the depleted supply caused by last summer's drouth. Kansas, Oklahoma and Nebraska will buy freely in the next six weeks. Some of their cattle will be drawn from Texas. At the meeting of the Texas Cattle Raisers Association in Fort Worth this month more than 50,000 cattle exchanged hands. Prices ranged from $30 a head for yearlings up to $70 for three year olds.

The following quotations are for stock and feeding cattle:

Selected feeders.	$ 7.75@ 8.40
Good to choice feeders	7.25@ 7.75
Plain to fair feeders	6.75@ 7.20
Selected stockers.	7.65@ 8.30
Good to choice stockers	7.25@ 7.60
Plain to fair stockers	6.50@ 7.20
Stock calves.	6.50@ 8.50
Stock cows.	4.75@ 6.50
Stock heifers.	5.00@ 6.75
Milch cows.	60.00@110.00

Hogs Up to $9.

Saturday hogs in Chicago and St. Louis sold as high as $9 and the tops at Missouri river markets were $8.70 to $8.80. This put the market into a new high position for the year and with the exception of two previous Marches the highest on record. Now that $9 has been paid, packers will have a hard time keeping the market below that level. Packers have been bearish at every turn, and many believe that from now on they will be forced to increase their purchases. Receipts last week at the five western markets fell short of the 300,000 mark for the first time this year, and still lighter supplies are expected next week. The beginning of farm activities usually causes a material decrease in shipping, and this year is expected to prove no exception. Farm reports indicate conditions favorable for a large pig crop, but that new supply will not figure in the markets before another corn crop is available. Chicago and St. Louis are receiving more hogs than the other markets combined and the greatest shortage is showing in Kansas City. Iowa and Illinois have marketed closely, and a big decrease is expected in the Chicago supply in the next two months.

The following table shows prices for hogs in Kansas City in the past two weeks.

		Preceding Week.
Monday.	$8.30@8.65	$8.30@8.62½
Tuesday.	8.40@8.70	8.35@8.65
Wednesday.	8.30@8.60	8.30@8.60
Thursday.	8.35@8.65	8.25@8.50
Friday.	8.40@8.75	8.30@8.50
Saturday.	8.45@8.80	8.30@8.40

The following quotations are for hogs:

Choice, 250@300 lbs	$8.75@8.80
Choice, 200@245 lbs	8.65@8.77
Medium weight.	8.55@8.75
Light weight.	8.45@8.70
Common to fair	6.85@8.30
Stags.	6.25@8.65
Boars.	4.50@7.00
Bulk of sales	8.55@8.75

Decreasing Supplies of Sheep.

Prices for sheep in the past two weeks fluctuated 20 to 35 cents, and the average was about the same as the last two weeks in February. However, the big part of the fed supply has been marketed, and smaller receipts are expected from now on. A good many hay fed sheep will be marketed from the mountain feed lots in the next three weeks, but the run from the Missouri valley will be small. Some shearing has been done in the southwest, and at feed lots near markets where the sheep were awaiting an advance in prices. Choice fat lambs are quoted at $7.50 to $7.85; yearlings, $6 to $6.85; wethers, $5.50 to $6, and ewes, $5.25 to $5.75. Some goats sold at $4 to $4.50.

HIS WORST WISH FOR THIS PAPER.

To the American Breeder:—Your last issue of the Breeder is a "Cracker Jack," the best thing I have ever read on horse breeding and I can't see how anyone interested in breeding can afford to do without it. The worst thing that I can wish you is that health, wealth and prospertiy may crown your efforts.—A. J. Porter, West Moreland County, Pa.

11¢ A Rod!



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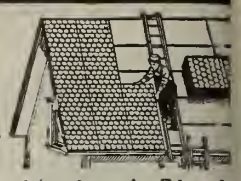
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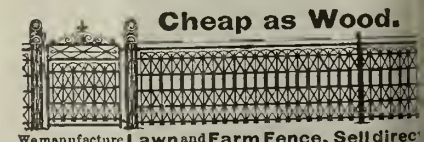
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ALREADY MORE THAN HIS MONEY'S WORTH.

To the American Breeder:—Find en closed $1.00 currency for which renew my subscription. Your March 5th issue contained several articles, any one of which is worth more than th three years' subscription fee.—Dr. J. C. Ballou, Ford County, Ill.

Hog Breeding; Lesson IV

Editor's Note:—So many of our subscribers have written us of their interest in hogs, that we are continuing, in the following article, a series of "lessons" on hog raising. This material is based on the knowledge of practical men and the best trained observation and experimental data. The reader will, of course, need to give all the additional study he can to the subject, but these lessons should serve well as a general guide and a foundation on which to build.

Feed and Care of Pigs.

The three prime essentials for success with young pigs are: (1) Feed, (2) Sunshine, (3) Exercise. If these three things are looked after carefully much will have been accomplished.

Feeding the Pigs Before Weaning.—The fastest and cheapest gains are made on a pig before weaning time, so ordinarily it will pay to keep the small pig growing as rapidly as possible. The sow should, of course, get some good milk producing feed and she should be fed to her full capacity as soon as the pigs are old enough to take all the milk she will give. It will not pay to limit the feed at this time, since the pigs make the most enonomical gains from feed fed through the sow. When the pigs get a month or so old, they will be able to use more feed than that obtained from the sow, even though the sow is properly fed and a good milker. As soon as the pigs will eat, which is usually at four or five weeks of age, they should be fed separately from their dam. A creep of some kind should be made for them, i. e., they should have access to a small pen where the sow cannot go to receive their feed. Skim milk fed in a shallow pan is very good for them. The pigs may also be taught to run into the creep for feed by allowing them some shelled or ear corn. They will begin to eat corn as soon as any feed. As soon as they begin to eat well, a slop made of milk, some shorts, a little bran and some linseed oilmeal or tankage will make a ration which with proper exercise will not cause thumps or scours. A good ration for young pigs is the following:

Corn, 4 parts; shorts, 4 parts; bran, 1 part; tankage, 1 part.

The above proportions should be by weight rather than measure. As the pigs become older, the corn in the above ration may be gradually increased until the amount has been doubled.

In addition to proper feed, however, the pigs must also have plenty of sunshine and exercise. These things cost little to supply but are absolutely necessary for best results.

Perhaps the most common trouble caused from lack of proper attention to the feeding and care of pigs is scours and thumps. Scours are usually caused by one of four things; either by:

(1) Changing the feed of the sow.
(2) Overfeeding.
(3) Dirty pens and troughs.
(4) Exposure of either sow or pigs to cold rain or to cold weather in such a way that they become chilled.

Since the cause of scours is something which causes indigestion, the thing to watch especially is the feed. Changing from sweet to sour milk often causes the trouble as will also the feeding of too much protein when animal is not used to it. If the sow is fed too much before the pigs were old enough to take all the milk, her milk flow is so stimulated that very young pigs will get more than they can utilize, thus causing them to scour. Pigs should always be in dry, clean quarters and be fed in clean troughs. They should not be allowed to run out in cold rain or allowed to become too cold in any way. Sows running through filth while nursing young pigs will often have pigs which scour.

There are a good many remedies used for this trouble. The first thing to do is to cut down on the sow's feed and clean up her quarters, if they need it. A tablespoon of sulphur in the sow's feed for two days is also good. If sow is given a good physic such as Epsom salts, good results will follow. Scalded milk is also a good remedy. Each pig may be given a good physic such as a teaspoonful of castor oil or Epsom salts. Charcoal is good.

There is also a contagious form of scours called white scours. The cure is to clean and disinfect pens and give good physic.

Thumps often occur in young pigs and is the result of lack of sunshine and of exercise, along with high feeding. The remedy is, of course, to cut down the sow's feed and force the pigs to take exercise out in the sunshine. Thumps also may occur in large pigs after they are weaned but when old pigs have it, it is usually caused by some affection of the lungs or bronchial tubes.

COST OF HOG GAINS WITH VARIOUS RATIONS.

To the American Breeder:—Corn alone, when fed to hogs, is an expensive feed. It costs $6.45 to produce 100 pounds of pork, if corn is worth fivty-five cents a bushel. To obtain the best gains at the lowest cost, it is necessary to feed some protein supplement, such as shorts or tankage, with corn. When these supplements are added to the ration, and the hogs allowed to run on pasture, it costs only $4.10 to produce 100 pounds gain. Corn, shorts and tankage, without the pasture, produce a gain of 100 pounds at a cost of $4.70.

These facts are brought out in our bulletin, "Hog Feeding," just published by the Kansas Agricultural College. The bulletin gives a thorough report of fifteen feeding experiments conducted during the last ten years. In these experiments 905 hogs, all bred and reared by the animal husbandry department, were used. In all feeding trials, the number of hogs was large enough to overcome individual differences.

A comparison of wet and dry mixtures of corn, shorts and tankage showed an average daily gain of 1.95 per head for the dry ration and 2.31 per head for the wet ration. The amount of feed in both cases was the same, but in the one case enough water was added to make a thick slop.

Different brands of stock foods fed with corn showed an average daily gain of only .76 pounds as compared with 1.67 pounds daily gain made with corn, shorts, and meat meal or tankage.

Kafir meal was found to be equal in fattening value to corn. Sorghum seed was found to give a smaller daily gain than either kafir or corn meal. In several trials where corn was supplemented with meat meal or tankage, corn returned a value of eighty cents a bushel. When shorts was added to this ration, a value of $1.07 a bushel was obtained for the corn. In both cases, pork was valued at $7 a 100 pounds.—Animal Husbandy Department, Kansas Agricultural College.

A SIMPLE SANITARY SYSTEM.

A simple sanitary system is a most important and necessary feature for every farm home. Without it the health of the family is in danger, however attractive and well arranged a farm house may be in every other respect. It is a matter that should not be postponed to a time when other matters do not press for attention but should be considered the moment it is needed. The U. S. Department of Agriculture has just issued a bulletin giving a detailed description of a simple sanitary system suitable for the average farm home. It will be sent free to any farmer on application.

The new bulletin is the result of a careful study. Convenience, comfort, and economy have all been considered and they may all be obtained if the suggestions given are practically applied with care and common sense. If the farmer has neither the time nor skill to install the simple system suggested, a reliable plumber, a pump expert or a sanitary engineer should be employed to install a system along similar lines.

The simple sanitary system recommended has four distinct features. It provides for:

(1). A pure water supply.
(2). Pumping, storage and distribution of water supply.
(3). A durable and simple plumbing system.
(4). A safe disposal for farm sewage.

Anyone who feels that the sanitary arrangements in his home are not entirely satisfactory is urged to apply for the Department of Agriculture's new free bulletin. With the help of a reliable plumber or sanitary engineer he will be able to work out a simple and economical solution for his problem.

WANTS TO HEAR ABOUT CLEVELAND BAYS.

To the American Breeder:—I would like to see the merits and demerits of the Cleveland Bay horse discussed in your paper. Wishing you success in your great work, I am W. W. Carpenter, Anson County, N. C.

FOUND ANSWERS TO QUESTION HE HAD IN MIND.

To the American Breeder:—Please put the following ad in the March 20 issue of your paper. Please find check for one insertion, and if it is more than will go in the space please cut some of it out, and I will be satisfied with what you do.

The questions and answers are worth almost as much to me as the balance of your paper. I have thought several times that I would ask a question or two but before I got ready, I would find an answer to the very question that I wished to ask. I am sending you a question this time on a separate sheet.—J. S. Billings, Greene County, Ill.

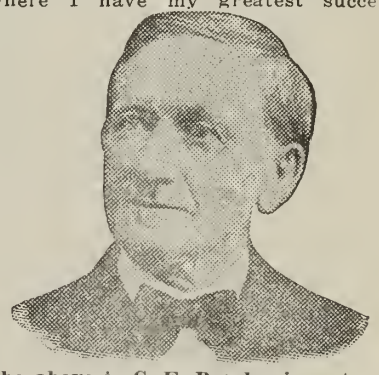


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Care of Mares at Foaling

As is our custom, we put great stress on prevention. It is better to avoid trouble than to contend with it after it has happened. In the care of pregnant mares the preparation for delivery should be made weeks in advance. Every pregnant female should have sufficient fresh air, exercise, good water and the right kind of feed, and the most important thing of all, kind treatment. A jerk or a kick by an attendant is not only liable to cause an abortion, but if the mare has trouble at foaling time she will not respond to the assistance of man properly. A kind word gives one confidence in the master.

Mares which are accustomed to work should be kept steadily at slow work. As pregnancy advances all hazardous work should be avoided. For some unknown reason a mare cannot back a heavy load with safety while in advanced pregnancy. This exertion is liable to cause an abortion. Mares should not be worked where they are liable to be jerked while pulling. All excitement, such as attends, butchering, should be avoided. Mares are usually afraid of blood. As pregnancy advances close to the period of delivery the mare should be placed in a lot during the warm days and given a good warm box stall at night where she can be loose. The bedding should be fresh straw.

A few days before delivery the feed should be gradually changed to a more laxative nature. Do not make this change too abruptly, but commence a few days before the wax has formed on the teats. If a valuable mare, arrangements should be made to have some one present at the time of foaling. If the foal is properly presented it should be delivered in a very short time. Ordinarily it is better to stay out of sight during the first attempt; let the mare alone. If trouble is expected, it is better to get a qualified veterinarian promptly. A mare loses strength rapidly and if assistance is not given at the proper time the chances depreciate for saving the foal or mare, or sometimes both. If it is thought best to assist the mare after the foetus has started, wait till the mare strains and then pull; it is usually best to pull with a twist. In a case of a very large foal it may be necessary to turn the mare on her back; this is not always easily done as some mares are easily frightened. The best thing in a case of this kind is to have the veterinarian's telephone number in a book where he can be called promptly. After the colt has been delivered, strip the naval cord with clean hands and dust it with a special preparation for this particular purpose. (See article in March 5th issue, "Preventing Naval Ill.")

See that the colt gets the first milk from the mare; this contains the property which should move the bowels. If its bowels do not move within a reasonable length of time use an injection. After delivery the mare should be given about two gallons of water (not too cold) and after an hour or two give her a gallon or two more. Do not give her too much water to start with.

Everyone attempting to assist in delivery of colts must be careful of infection. If there is an improper presentation of the foetus or an afterbirth is retained, then you need the services of the most skilled veterinarian you can command. These are the cases which, if not properly managed, become infected and die. No meddling by one not familiar with the nature of these cases should be indulged in, for the reason that a mare is very susceptible to infection and sometimes dies in spite of the best medical attention. Many laymen attempt obstetrical work on cows and succeed very well, but when it comes to the question of relieving a like condition in a mare it is a different proposition.

HOME ADVICE FOR "MONTANA MAN."

To the American Breeder:—Several Eastern men have written their advice to the "Montana Subscriber" concerning the small mares. These men know nothing about our Western condition. If that Montana subscriber will visit some of the successful horse breeders in the West he will know exactly what to do. We are now raising some of the best horses in the world.

The proper thing for this man to do is to select a compact draft stallion weighing at least 1800 pounds. This sire should be as nearly perfect in conformation as possible and a well bred registered draft stallion. He should have an abundance of bone and an excellent disposition. The disposition and bone are two things that need to be improved in the average Western mare. He can produce chunks weighing about 1400 pounds at maturity. This class of horses finds a ready market at about $150 each after they have been driven a few times. The gelding go to the cities as chunks, three of them are worked instead of a large draft team. They are very quick and active and can move an enormous load. A right good horse of this kind is worth $200. The mares go to the farms where they are in great demand. Some have advised this man to use sires of the roadster type, which is a serious mistake. We have too many horses of this kind raised on the range, and they have too little value.

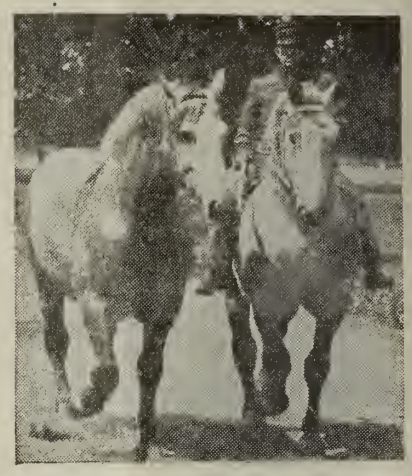
We have been raising draft chunks here for years and have found it very profitable. We are keeping our mares and disposing of the geldings. Each change in stallions requires a regular horse. A lot of our mares now weigh from 1600 pounds up. Where they are properly cared for in the winter, the growth is easily and cheaply made. They do not require any grain in the summer time, but do require feed in the winter, during bad weather. There is very little money in raising the light stock, as there is practically no market for it. Some of the best draft chunks I have ever seen are out of well proportioned draft stallions and small pony mares. The mares are excellent milkers and the first cross makes a wonderful improvement. Very frequently we find yearlings as large as their mother. There is very little difficulty about using large stallions when they are well proportioned. Theory may be nice to read, but satisfactory results after a trial is much better. There are many horse breeders in this part of the country who are making a study of this particular subject. They are

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WM. CROWNOVER, Hudson, Iowa.



Imported Percherons and Belgians

All horses personally selected direct from the farmers, for good bone and of the best draft type and conformation. All will mature from a ton to 2,300-pound horses. I give a gilt edge guarantee good for two years. I am going to price them down very reasonable. Come and see them and be convinced.

W. H. Richards, :-: Emporia, Kas.

(Barns four blocks from A. T. & S. F. Depot.)

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THE HIGHEST TYPE OF PERCHERON MARES

and fillies, either imported or American bred, kept under healthful farm conditions, and sold reasonably.

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Percheron Stallions, Jacks and Jennets



Imported black Percheron stallions, 5 and 6 years old weight from 1700 to 2100 pounds. These horses are well brok and tried breeders. Can show best colts in Kansas. Can us a strictly good two or three year old jack on a trade for on of these stallions.

Big, black, registered Mammoth jacks and jennets; 1 to years old. Jacks 15 to 16 hands high; tried breeders and quic workers. Can show colts. Herd headed by imported Spanis jack. We won more prizes at the Kansas Sate Fair in 191 that all our competitors. Farm 30 miles Northwest of Hutchin son. Come and see us. Will meet trains at Chase or Raymond.

J. P. & M. H. MALONE, CHASE, RICE COUNTY, KANSAS

Percheron Mares and Stallions

Two coming two year old stallions; weight 1,650 each; two coming yearlin stallions; three mares in foal to imported Percheron stallion, a ton horse. Fo prices, write,

E. N. IRISH, BLANDINSVILLE, ILL

BY USING CAPSULES

last year I found I could make one of my two Percherons do more business than both together had been doing. For that reason

ONE STALLION IS FOR SALE.

He is good every way; 3 years old; 1800 pounds; iron gray; gentle; well broke; in good demand among mare owners here and sold for absolutely no fault.

If I had not found that my other young stallion could do the work of both he would not be for sale. This is a $1,000 horse, but because the season is close I am making the price $700.

F. P. FRIEDLINE, Rte. 1, Caney, Kans.

GOING TO QUIT BUSINESS.

Four big stallions and jacks. One imp. Black Percheron; 7 years old; extra heavy bone; straight legs; best of feet; weight 1900. Tried breeder; colts to show. One grade black Percheron.

Two big registered black Mammoth jacks with white points; 15½ hands high, standard; extra large head and ear; heavy bone; straight legs; big feet; good workers on mares or jennets. Plenty of colts to show.

B. H. BAGLEY, Zenith, Stafford County, Kans. (On Kinsley branch Santa Fe, 33 miles west of Hutchinson, Kans.)

IMPORTED BLACK PERCHERON STALLION FOR SALE CHEAP.

Gravina 50728 (71374); sire Bon Marche 45869 (55741) by Casino 27830 (45462); dam Rustique (50456) by Ooltaique 25159 (43193); second dam Pella (40342) by Francais 15747 (20374). Gravina is a sure foal getter; colts to show; 7 years old; weighs 1,750 pounds in breeding condition. Reason for selling: Want to dissolve company. Might take registered mare or fillies in trade, but no stallion.

HAMANN, SACHS & JAGORO,
Aug. Hamann, Mgr.,
Danvers, Minn. Route 2.

Percherons

For sale. One imported, nine years old; weighs 1850; black. Two coming three; black and grey; weight 1850 and 1800. Will make a ton each. Buy them of the farmer and breeder.

CHAS. E. WARREN,
Sutherland, Iowa.

DELAWARE COUNTY, OHIO, PERCHERONS

For sale. Any one contemplating buying Percherons should not overlook Delaware County's products. There are over 300 pure bred Percherons owned in county. Stock always for sale. Send for circular and list of breeders to **O. H. Pollock, Sec'y., Delaware County Percheron Breeders' Association, Delaware, Ohio.**

RECORDED PERCHERON STALLION

For sale. Coco Cola 86944; two years; black; weight 1750 pounds. Sired by 2200-pound stallion; out of 2000-pound dam; large; smooth; sound; heavy bone; best of action. Priced to sell. Come or write.

J. H. WINTERMUTE,
Blockton, Iowa.



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All stock guaranteed and priced right and terms to suit customer. References, Banker's National Bank.

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Young Stallions—Brood Mares.

Stallions coming 2 to 4 years; mares all ages. A big, rugged, drafty, heavy boned lot, with plenty of quality and action. Blacks and greys. A large per cent sired by our herd horse, Superior 40605; weight 2300. Our horses are roughing it and are NOT overloaded with fat. JAMES LOONAN & SON, WATERLOO, IA. Farm 3 miles from Hudson; 8 miles from Waterloo.

150 STALLIONS

Imported and home-bred stallions. I guarantee to sell you stallions for less money than any firm in America. Come to a Live Horse Market and see all draft breeds. Reference, any Bank in Creston. **A. Latimer Wilson, Creston, Iowa.**

not satisfied with their own work, but visit other herds, so as to know exactly which is best. The general opinion is that a good, big, well proportioned draft stallion is the only kind of a sire to use on these small mares.—Montana Subscriber.

INFORMATION ABOUT WYOMING.

To the American Breeder:—If H. Kirchner will send me his address I will put him in touch with one of the best valleys, in Southeast Wyoming with surrounding hills for pasture. The valley raises alfalfa, four to six tons per acre; wheat, 35 to 60 bushels; oats, 60 to 80 bushels per acre.—A. D. Watson, Osage County, Kans.

Mr. Watson should have made his reply in full for publication. Hundreds of men beside Mr. Kirchner would have been interested. We do not furnish addresses of correspondents or in any other way give the American Breeders' time or space to the service of just one or two persons. We have many thousands of readers who would have an equal right to call on us for such service, and our aim is to devote the paper only to such matters as are of benefit to all.

GOOD BOOST FOR STOCK COUNTRY.

To the American Breeder:—I will try Mr. H. Kirchner's question about Southeastern Wyoming. As to horses, will say that they run on the range the year round, get good and big and mature at a good age. One neighbor had raised Shires for 25 years and a short time ago the colts were still on the range with the mares after a hard winter, and all looking good. Cattle go off the range here for beef in the fall; in fact, all sorts of live stock do well here.—A. R. Carpenter, Laramie County, Wyo.

CEMENT SIDEWALKS.

To the American Breeder:—The four principal requirements of good sidewalks are, smoothness, non-absorbant of water, durability and low in first cost. The one that comes nearest fitting them all is that of Portland cement construction.

Care must be taken in the construction of a cement sidewalk and one of the principal things to consider is the foundation. This has often been entirely neglected with the result that the walk was soon in need of repair. The foundation should be of some material that is easily drained and readily and evenly packed. Broken stones or gravel is often used, but the best results have been obtained by using cinders. An excavation ten inches below the finished surface should first be prepared. In this, place six inches of cinders evenly packed to give an even bearing surface for the walk. On this is placed three inches of cement covering for wearing surface. The foundation should be thoroughly wet before applying the concrete. If the base is allowed to set before the top coat is put on it should be left rough to give a binding surface for the next coat.

Improper proportioning and mixing of materials and laying in freezing weather often causes failures, but more often we find the failure is due to a poor foundation.—O. P. Pennock, Colorado Agricultural College.

MARE FOALED TRIPLETS.

To the American Breeder:—A Mr. William Morris of Burlington, Ind., had a mare that lost triplets a few nights ago. Three colts were born, all of nearly one size—two horse colts and one mare. She carried them about eight and one-half months. The mare is a grade Percheron and the stallion an imported horse owned by Mr. Trinkle.—J. A. Hart, Clinton County, Ind.

Stallions

Percherons and Belgians

Our latest importation are really better horses than we anticipated. See this shipment and select a young horse of unquestioned quality.

Remember our **offices** are located **down town,** just **opposite** the **Interurban Station.** Our 1914 business has excecded all previous records.

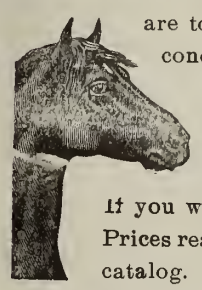
Increased business requires more room and has nothing whatever to do with the price of horses.

Just the same old firm; just the same reasonable prices; just as good stallions as can be found in any barns and sold on easy terms with a guaranty worth something to you.

Don't forget that we **Import** our own **horses** and no extra profit is added for some other Importer.

Geo. W. Souers & Sons,
Huntington, Ind.

DUNHAMS PERCHERONS



are today, as for the past 50 years, the BEST, as shown conclusively at the fall fairs and International.

We now have at Oaklawn a most excellent and uniform lot of stallions and mares, having just recently received a LARGE NEW IMPORTATION.

If you want the best—stallions or mares—visit Oaklawn. Prices reasonable—guarantee the most liberal. Send for free catalog.

DUNHAMS WAYNE, DU PAGE COUNTY, ILLINOIS

Robison's Percherons
175 For Sale



Best Collection of *Stallions* and *Mares* ever offered for sale in the West. Come and see me if you mean business.

None Can Undersell Me

J. C. ROBISON, TOWANDA, KAS.

IMPORTED PERCHERON STALLIONS

Each year I select 35 or 40 horses in France, so good and so correct in type, that any one of them will prove a great benefit to the man who buys it.

At the shows of the Southwest circuit, our horses won every championship and every group of five in 1913, as they have done most of the past five years. Our horses are handsome; our contract just and right; our insurance the best. Come and see me.

PERCHERON IMPORTING CO.,
CHAS. R. KIRK, Mgr. South St. Joseph, Mo.

WHAT MINNESOTA BREEDER ANSWERED THIS ADVERTISEMENT.

To the American Breeder:—Some time ago I advertised a stallion to exchange and from the ad received many letters. Among them was a letter from a breeder in Minnesota who had the nearest to what I wanted, but I lost his letter before I got ready to answer it. I hope he will see this notice and write me again. I do not know any other way to locate him.—J. B. Ring, Louisburg, Kans.

BREEDING STOCK

For sale. Pure bred Percheron stallion, Marvin 54190; Standard bred stallion, King Barada C. 223; Mammoth jack, Carlso 20336.

Will sell the above stock under guarantee at a very low price if taken at once. Write me about these at once.

JOHN WEAVER, Moriah, Ill.

4 GOOD PERCHERON STALLIONS.

Two Are Imported; Two Home Bred.

And all ready for service. These are for sale at reasonable prices. I have also for sale several younger stallions and some imported and American bred mares and fillies, all good.

MANUEL CROSS, Adrian, Minn.

Questions and Answers.

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best autho ities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

795—COLLECTING SERVICE FEES—I have three mares bred to my jack for a man who moved from Nebraska to Missouri without a settlement. I advertise service fees due before mares are moved out of the county or sold. Have I any way of collecting from this man? Is there a graduate of the breeding school at Monroe City, Mo? —Nebraska Subscriber.

REPLY.—We believe you can collect the service fee under the Missouri state law, which is a good one. The colt can be held, in our opinion, in this case. The Missouri collection law is similar to the feed bill lien law. Write to A. Lee Ely, Monroe City Mo., who is a graduate of the Scientific Breeding School you speak of. He can go before a Justice of the Peace and make out the necessary papers for you, or arrange for an attorney to do it.

796—CERVIX DURING PREGNANCY—Will you please tell me the condition of the cervix of a mare when in foal?—Kansas Subscriber.

REPLY.—Soon after conception the cervix closes and as pregnancy advances the cervix gets shorter; a few months before delivery the uterus gets heavy and the end of the cervix usually raises up so that the end of it will be higher than common. Just before delivery the cervix is very short and about the size of a hulled walnut.

797—NON-PRODUCING MARES — I have two mares, one weighs about 900 and the other about 1050. We bred them to the horse for three or four seasons, but they never got in foal; they seem all right, too. This year I had the jack serve them, but I don't think they are in foal. Will you please tell me how I could make them produce colts?—New Mexico Subscriber.

REPLY.—If these mares are not diseased, breed them with the capsule. This should give you good results.

798—OPENING MARES—How is the best way to open up a mare's womb? What size is it when in right condition to conceive?—Tennessee Subscriber.

REPLY.—Wash your hands good with soap and water; rinse them in sterilized water (water which has been boiled); do not use a disinfectant of any kind during your breeding operations. Insert one finger into the cervix, which is the opening into the womb. One finger should go in nicely; do not make the opening large enough for two fingers.

799—CORRESPONDENCE VETERINARY SCHOOL—What do you think of the London Veterinary Correspondence School of London, Ontario, Canada? Is it all right for a man to take for his own use on the farm —Ohio Subscriber.

REPLY.—Our advice would be to employ a qualified veterinarian or attend a recognized veterinary college.

800—USING CAPSULES—I see among the articles listed to be used in breeding, the semen pan is in the list. The way I understood it was to draw the semen from the mare with the extractor and fill the capsules from the extractor as you use them and then keep the extractor in water pan between fillings. Please let me know if I am right.—Kansas Subscriber.

REPLY.—Your idea is correct, but it is necessary to have a basin to catch the semen in, in case it is withdrawn by the stallion.

801—EVERY OTHER YEAR MARES—I have a mare ten years old that will breed only every other year. She has a mare colt five years old which I am afraid will not breed only every other year. Both these mares are in good condition and have good colts. In the season of 1911 the old mare took the horse but once. She refused to take him any more, but she did not have a colt the next spring. The next season she took the horse only once and is due to foal a colt within a few days. The younger mare had a colt last spring. She took the horse all summer at the regular times and is not to have a colt this spring. Can you tell me of anything that will make these mares breed every year?—Indiana Subscriber.

REPLY.—Breed these mares with a capsule on the seventh day after foaling. Be sure that the operator maintains the right temperature, and that the stallion is fertile. A microscope should be used to know that that particular service is good. An effort should be made to get such mares in foal at the first heat period before the flow of milk is stimulated to the extent that nutrition is diverted from the genital tract. Mares with a heavy milking capacity are liable to skip.

802—CRIBBING—I have a registered Percheron stallion and a mare that raised four colts from him and three of them are cribbers. Also there are several other of his colts that are cribbers and some of my neighbors think it is in the breeding, but the horse is not a cribber and I would like to know what makes a horse a cribber, and a remedy, if there is any.—Missouri Subscriber.

REPLY.—Cribbing is regarded as originating in a habit probably in-

Two Percheron Stallions
For Sale Cheap

If taken in the next two weeks. Blacks, weighing 2100 to 1800 pounds. One is sire of the first prize colt at Des Moines and the other is its full brother. Because of this close relationship I cannot use them. Will trade one for another stallion as good.
JOHN VOUGHT, Hampton, Iowa.

Percheron Mare
For sale. Maggie 68064; four years old; weight 1800; in foal. Also her stud colt, Coco 92569; 18 months old; weight 1535. Both gray; sound and right.
Harry E. Ross,
Route 89, Centerville, Pa.

PERCHERON STALLION
For sale. Superb 62477; is a very dark gray; coming 6 years old; an excellent breeder and sure. Colts to show. He is a line bred Brilliant, and a good one and sound; weight 1900. Must be sold by April 15th. Come and see him. He will be priced to sell.
C. A. MOORE,
R. F. D. No. 4, Canton, Ill.
Bell Telephone.

Two Mares For Sale
Both recorded in the Percheron Stud Book. Both heavy in foal to an imported gray Percheron stallion; 2100 pounds. This ad will appear only once.
Box 412, Traer, Iowa

FOR SALE OR TRADE.
A black Percheron stallion, No. 32581; weight 1,900 pounds; age 12 years. Would change for good jennets. Write or see,
W. R. HUSTED, - - Centerville, Kas.

PERCHERON STALLION.
For sale. Five years old; weight close to a ton. Registered in Percheron Society of America. Will sell him worth the money. Write
J. H. KIDD, Route 30, Mars, Pa.

PERCHERON AND BELGIAN.
Stallions. Can show the buyer one stallion or 50, $450 and up. Some weigh 2,160 pounds. For sale, part cash, balance, 1, 2, and 3 years at 6 per cent.
R. I. LITTLE, Route 2. FAIRFAX, IA.

PERCHERON STALLIONS.
A choice pair of two year olds; blacks; plenty of size and bone.
A. M. DULL & SON, Washington, Kas.

Pure Bred Percheron Mares
For sale; in foal to prize winning stallion; registered in P. S. A.
C. P. O'DONNELL, Winchester, Ill.

PERCHERONS
For Sale. Imported and home-bred stallions and mares at prices that will sell them.
H. REDENIUS,
RUSHMORE, Nobles County, MINN.

PERCHERONS
The best yearling stallion in Iowa, also weanling stallions.
F. M. SMITH & SONS,
Crawfordsville, Iowa.



Our First Prize Percheron Group (All Two-Year-Olds) At Nebraska State Fair.

We Announce th Arrival of Our
NEW IMPORTATION OF PERCHERON and BELGIAN STALLIONS and MARES

We are showing without doubt the best lot of imported Stallions and Mares we ever owned, which together with our American-breds makes a grand lot for you to select from. We invite inspection.

WOLF BROTHERS
ALBION, Boone County, NEBRASKA

Want a Stallion? Time Is Short.
GO WHERE YOU CAN MAKE A CHOICE
From 2 barns of good ones. Here are some samples

Hoof No. 36; imported black Percheron; 2 years past; weighs now 2000 pounds and outstanding good.
Hoof Nos. 22, 28, 32, 22 and 24, all of my last importation, blacks and dark grays, combine quality with plenty of size and substance.
In mares I have the champion and reserve champion Belgians at Topeka, Kas., last fall, and a bunch of producing Percherons.
I have nearly one barn full of Percheron and Belgian colts from yearlings up.
Remember, a man with only one horse don't have to sell; he can stand it again. We have to sell and we make prices that sell them.

Route 9. L. R. WILEY, Emporia, Kas

300 PERCHERONS
We have 50 suckers, both sexes; 100 yearlings, both sexes—Imported and Home Bred; 150 matured stallions and mares, from Two to Six Years.
We have the best mares and fillies we ever owned or ever saw. Our yearling stallions are of heavy bone and extra good quality. Our 2-year-old and matured stallions are not excelled by any barn in the United States. Our mares are bred to our best $3,000 stallions, Honorable and Jalape.
We have been in the horse business 39 years. Stock just as represented o we pay your expenses to look at them.
SINGMASTER & SONS, Keota, Iowa
Branch Barn Sioux City, Ia. SINGMASTER & WALKER.

THIRTY PERCHERONS AND BELGIANS



and one Shire. They range in age from 1 to years; all sound and heavy boned; weighing fro 1800 to 2,200 pounds. There are 17 stallions and 1 mares. I will also sell my herd stallion, Jupite 65723, coming 5 years old; weight, 2200.
These stallions are all sold under a guarantee t be 60 per cent foal getters. I have four year old that weigh 2200; 2 coming 3 that weigh 1800. Ca sell a good ton stallion for $750; sound and righ in every way; some a little higher, and some lowe I will sell at a bargain to early buyers. I hav both imported and home bred stock. **PETER J. EGGERS. DENISON. IOWA.**

International Prize Winner
For sale. Two 1913 Internationa prize winning Percheron stallions o our own breeding. Sereno 75507; foale April 25, 1910; black; weight 205 Fourth prize American bred over years. The best colt of his age show in the class.
Herod 95146; foaled April 10, 191 dark grey; weight 1630, third pri Futurity colt and a half brother Hylarion, the first prize Futurity col
S. S. Russell & Son, Neponset, Il

REGISTERED PERCHERON STALLIO
For sale. Black; 5 years old. W sell cheap.
KIRK DAVIS, Langsville, Oh

I. C. EVANS, Troy, Iowa

IMPORTED AND AMERICAN BRED PERCHERON STALLIONS AND

mares for sale at right prices. Recorded in Percheron Society of America. If in need of a good stallion or mare, you had better get busy, and buy of me. I will guarantee square dealing with the right kind of stalllons and mares to satisfy you, with quallty and weight.

PERCHERONS

I now have on hand a very choice lot of good young stalllons and mares of all ages that I am offering at bargain prices. Terms to suit. Will also furnish horses of all kinds on orders from one to car load lots. Barn in town.

A. R. IVES, Delavan, Wis.

IMPORTED AND HOME BRED STALLIONS AND MARES.

PERCHERONS, BELGIANS, SHIRES.

The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Percheron this year. See what we have before buying elsewhere. **Address Hart Bros., Osceola, Iowa.**

A Bargain

am forced to sell at a loss a fine Percheron stallion that has show quality, and the very best of breeding. His photograph and breeding will gladly be sent to any interested party. Farm is 26 miles from Chicago.

L. E. TOMPKINS, Palatine, Ill.

LOWEST PRICES

for the Next 60 Days on

LIMESTONE RIDGE FARM PERCHERON STALLIONS AND MARES.

Also Jacks, Jennets and Saddle Horses.

ISAAC C. LOHMAN,
Clinton County, Route 3, TURNEY, MO.

PERCHERONS FOR SALE.

I am offering an extra fine lot of coming two, three and four year old stallions for sale. Large draft kind with large clean bone. Also some extra good mares In foal. Will be priced worth the money.

E. D. SEAMANS,
Salem, Henry County, Route 1, Iowa.

For Sale

One Percheron stallion; 3 years old last September; from imported sire and dam; a good one; pasture broke. One imported stallion, 7 years; weight 1950; plenty colts to show.

Also a few registered fillies all of my own raising.

C. Stahly, Milford, Seward County, Neb.

PERCHERON STALLIONS

For sale. Eight head of two year old stallions (coming 3); one 5 year old stallion, also yearlings and weanlings. All recorded Percheron Society of America. Blacks and greys. Good individuals and priced where you can afford to buy.

WRIGHT BROS.,
Mt. Pleasant, Henry County, Iowa.

Percheron Stallion

For sale. Glorieux, Jr., 95807 P. S. A.; foaled April, 1912; dark gray; heavy bone; fine style and action; Besique and Brilliant breeding. Sired by an imported state fair prize, weighing 2200, and out of the best brood mare we own.

JOHN W. MOORE & SONS,
Box 27, Canton, Fulton County, Illinois.

PERCHERON STALLION

for sale. Color, gray; two years old; imported in dam; a good thick colt; wonderful back, neck and hips; goes like a coach horse, and is sound. His dam was a ton mare. Stood second place Paris show, 1910. Price $700.

Also have Angus cattle for sale.

M. B. WALKER Clarinda, Iowa

REGISTERED PERCHERON STALLION.

For sale. Champion 70919; gray; coming four; weight 1800; sound; well limbed. Price $600.

G. H. BLUM, Cedar Falls, Iowa.

PERCHERON STALLIONS, MARES AND FILLIES.

Imported and home bred, for sale at reasonable prices.

W. C. BAUGHMAN, Pulaski, Iowa.

duced by idleness as much as any one thing, and we do not think your horse is responsible for the condition in the colts.

803—SERVICES FOR A WORKING STALLION—I have two stallions, one pure bred Percheron and one Belgian and Percheron; both coming four years old. How many mares can I let them cover without injuring my horses? Would a mare a day be too much and would it hurt them to work in the field, one in the morning and the other in the afternoon?—Illinois Subscriber.

REPLY.—One service a day might not be injurious by allowing them to skip occasionally. Four or five services a week ordinarily would be about the limit for this age. A good horseman can usually work stallions a few hours a day with good results. Be careful about making any sudden change in feed or excitement. No stallion to be used for breeding purposes should ever get very hot. Bring them into their work by degrees. Many valuable stallions are ruined by being over heated. These big horses that have been pampered cannot stand much exercise at the beginning of labor. It is not advisable to send out a good sire with a careless man.

804—CAPPED HOCK—I have a colt coming three years old that has a capped knee or hock joint, as you call it, on one of his hind knees. This is about one year old. It is about the thickness of a man's hand and soft and always was soft. I used some kind of a blistering agent called Reducine, for about three months last summer, but it was of no avail. Can you give me a cure for this ailment. The colt never went lame.—Pennsylvania Subscriber.

REPLY.—We cannot offer you any advice that we think would help the case, and inasmuch as it does not lame the animal we would suggest that you let well enough alone. A skillful surgeon might remove it successfully.

805—THREE YEAR OLD SERVICES—Please tell me how many services it would be safe to give a pure bred Percheron stud coming three years old July 26th, 1914? How many a week?—Pennsylvania Subscriber.

REPLY.—Five services per week should be about the limit. A service every other day will give you better results.

806—FOUNDERED STALLION — I have a Percheron stallion nine years old that got foundered last May on maize. I stood him in water and bled him in the fetlocks, fed him alum and some medicine, but they did him no good. He is still sore. Will you please tell me what to do for him?—Oklahoma Subscriber.

REPLY.—In addition to soaking his feet for the purpose of softening them and reducing the inflammation, apply a blistering agent around the coronary band of the feet affected. Make the application, of course following the soaking process. Use the following: Powdered cantharides, one ounce; Biniodide of mercury, one dram; vaseline, four ounces. Mix all together and after clipping the hair from the parts apply with the fingers, rubbing in briskly for several minutes. Tie the horse so he cannot reach the parts with the mouth for 24 hours, then wash the blistered surface off with warm water and soap and when dry apply a little vaseline to keep the parts soft. Repeat in about three weeks, first soaking the feet for three or four days.

807—PERCHERON BREEDING — I would like to get some information in regard to the breeding of a Percheron stallion. I think there is none better but have some argument. He is the imported stallion, June (87063) 87205; foaled April, 1909. Was champion at New York State Fair, Syracuse, N. Y., 1912. He has 21 crosses of Brilliant; 20 of Coco and two of Bisique. Stood seventh at Chicago International, 1912, and very thin, weighing about 2000 pounds; should weigh 2250 or 2300 in show condition. Is a brown with lots of bone and a great actor.—Ohio Subscriber.

REPLY.—Brilliant blood in a Percheron pedigree does not always indicate excellence. A lot of Percherons are given this name that do not trace to Brilliant blood. There are several excellent sires among the Brilliant horses. The one most notable in this country was 1271. Coco breeding is generally recognized as superior to many of the sires in France. Besique is a great sire, although not one of the largest horses. Many Percheron breeders like to see his name appear in their pedigrees. Your stallion is above the average in blood lines, and a good individual. His color may be objected to by some, as gray and black are the most prominent, but all good horses usually have good color. A good brown gelding wil not be objected to in any market.

808—DISPLACED BOWELS — My seven year old jack took sick in the evening. When first I noticed him he was wet all over with sweat on a cold day and was trembling in the hind parts and continued to do so until death next morning. Never seemed bloated, but was in severe pain and rolled some early in the evening. He breathed hard and just before he died white stuff ran from his nostrils. On post mortem examination there was about twelve feet of his intestines filled with blood. Did that cause his death and what was the cause of the blood being there? Stomach and bowels seemed natural. Injections would not make his bowels move. He ate his feed in the morning before he got sick and seemed as hearty as ever and he had never missed a feed in his life before.—Kansas Subscriber.

REPLY.—Such cases usually die from a displacement of the bowels that may not be exactly detected on a post mortem examination, and yet are sufficient to obstruct the circulation sufficiently through the part to cause the death of the animal.

809—DIFFICULTY AT FOALING TIME—We have a mare that has been a regular breeder and has raised five colts and never had any bother foaling until two years ago and last year also. The last two colts came hind feet first and one was with its back downwards which made it a difficult job to take from her, and they both

PERCHERONS

Prices That Will Profit Early Buyers on Both Stallions and Mares.

The mares range in age from weanlings to aged mares, and the stallions from weanlings to 3-year olds past.

I have been in the business a long time and on account of not being able to get competent help am compelled to close out. If sold in a bunch I will make the price right.

GEORGE HIRSCHMAN, Pierson, Iowa

WHITEOAK STOCK FARM

American Bred Percheron Stallions and Mares.



The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.

PERCHERON MARES AND FILLIES WANTED

Mares must be between 3 and 8 years old; safe in foal, sound and of good conformation, and must weigh 1,800 or over.

Fillies must be good and growthy, sound and of good conformation.

All stock registered in Percheron Society of America. Address,

C. J., care of American Breeder,

225 W. 12th St., Kansas City, Mo.

35 HOME-GROWN PERCHERON AND SHIRE STALLIONS AND MARES AND 50 REGISTERED JACKS AND JENNETS.

of the big boned, rugged kind, from 14 to 15½ hands high. This stock is all pasture raised and runs in the open. Will make a special low price on my imported Belgian herd horse, Champion 4980 (58644); sorrel; weight 2,200 pounds. His fillies are in the way. This horse is 6 years old and a sure breeder. All stock sold with breeding guarantee.

HENRY BECK, LITCHFIELD, NEBRASKA.

PERCHERONS at PRICES

that will profit early buyers of both stallions and mares. The mares range in age from 4 to 8 years old, and the stallions from 3 to 5. I have been in the business a long time and wish to reduce my stock. These are all good ones. If sold in a bunch I will make the price right.

I. H. VANNORSDEL, Kingsley, Iowa

TWO FULL BLOOD PERCHERON STALLIONS

for sale. Both registered in Percheron Society of America and licensed. One grey, coming 5 years old; extra heavy bone and fine conformation; weight 2100 pounds; a great horse and sure breeder. One dark brown; coming 6 years old; weight 2000; a magnificent individual; beautifully mannered and an exceptionally sure breeder.

These horses are sound and kind disposition and are offered for sale because I have leased my breeding barns and wish to retire. Both horses priced to sell. Write for full description and photos or come to see them.

DR. L. R. CHAPIN, CANTON, ILL.

Percheron Stallions

For sale. Six head, 2 to 4 years old; black; weight 1400 to 1950. Price $400 to $800. Call on or write to

S. L. PAYTON, Bedford, Iowa. Rte. 1.

IMPORTED BLACK PERCHERON STALLION

For sale, coming eight; weight 2000; easy to handle; good breeder; colts to show. Fillies in the way. Would trade for a good horse the same kind.

J. C. Womble,

Wildorado, Tex.

Percheron Stallion $700

For sale. Pure bred imported Percheron stallion; six years old; 16 hands high; color black; stripe extending to nose; in healthy condition; free from disease; strongly Brilliant bred. A prize winner. Good foal getter; colts uniform build and large. Wish to quit business.

C. E. BALDWIN, Ada, Kansas.

75-PERCHERONS-75

Thoroughly acclimated. Young; good colors and very high class.

CRANDALL & DANFORTH,

Randolph or Northfield, Minn.

TWO TON STALLIONS

For sale. These are good Percherons; both good grays; sure breeders and all right and the price is less than right.

A. B. LEE, Mitchellville, Iowa.

Percheron Stallion

High grade Percheron stallion for sale or trade; 5 years old; weight one ton; good disposition. Colts to show.

J. J. CURRY, GAYS. ILL.



PETER HOPLEY & SON

are offering a grand lot of matured, imported Shire, Percheron and Belgian stalllions, 3 to 5 years old; weighing from 1900 to 2300. ¶A few American bred horses, 2 and 3 years old; weighing from 1700 to 2000. In order to make quick sales, we are offering these horses from $400 to $1200, at our stables only. We give 60 per cent breeding guarantee, and $500,000 stands back of it. Every Horse Sound, and Sold with a State Certificate.

ATLANTIC OR LEWIS, IOWA

West Pine Stock Farm

HAS FOR SALE

The Belgian stallion, Cavour 6635; foaled June 2, 1911; sorrel, stripe in face; weighs over 1900 pounds at 32 months and is sure to weigh a ton. or more, when three years old. Imported sire and dam both weigh over a ton and can be seen here on the farm. Was first in class and reserve champion at the Benton-Warren Fair in 1913, the only time ever shown. Shows a sound state inspection certificate. If you are looking for something good with his whole life of usefulness before him, investigate this one. Don't buy a worn out one. Stop the high cost by buying from the breeder and saving the "Middleman's" profit.

HARVEY SMITH,
Boswell, Benton County, Indiana.

Percherons and Belgians

Home raised Percheron and Belgian stallions for sale. One coming four years old; two coming two years old; one coming one year old. Three Percherons and one Belgian; good colors and size; will mature into ton horses.

W. R. HANKINS,
Ravenna, Buffalo County, Neb.

PERCHERONS, BELGIANS AND GERMAN COACH MARES AND STALLIONS

of all ages for sale. I have recently taken over the entire stock of horses formerly owned by the firm of Ives & Bellman and can furnish patrons with first-class breeding stock of the foregoing breeds. Have a fine lot of 2 year old and older stallions to select from. Address,

WILL BELLMAN, R. 1., Delavan, Wis.



FIFTY STALLIONS AND MARES.
$250 to $1000 Each.

Write for my illustrated **Circular telling why I can save you money** on the purchase of Percheron or Belgian stallion or mare.

A. W. GREEN,
Middlefield, Ohio.

R. R. Sta., E. Orwell, on Penna. Ry., between Ashtabula and Warren.

Imported Belgians and Percherons

Nine stallions of breeding age, **five** home bred stallion colts; 30 **imported** mares coming one and two years **old.** All as good as money could **buy in** France and Belgium. Will be **sold at** very small profits.

BROWN & AYRES, Hillsboro, Ohio.

--BELGIANS--

A carload of imported and home bred Belgian stallions and mares; all ages. Matured horses weigh from 1800 to 2200; with plenty of bone and quality, at prices to sell.

ED BOLL, JR., Scribner, Neb., Rte. 5.

came dead, but were alive just before the mare started to foal and she foaled about a week over the eleven months. The mare was always in good condition and had plenty of exercise and she is in foal again. Is there anything that can be done in her case?—North Dakota Subscriber.

REPLY.—Make arrangements with a good veterinarian so that you can get him on the premises in a very short time. Both of these colts could have been saved by a qualified man. There is a dangerous time during parturition. A mare usually foals quickly and if the nutrition is severed between the colt and the mare, and the colt cannot breathe, death will result quickly. An experienced man should usually be able to turn a colt and deliver it in a very few seconds.

810—FEEDING CRACKED CORN—Is it dangerous to feed cracked corn on account of colic? I have heard some say it was.—Ohio Subscriber.

REPLY.—Corn never makes a safe ration fed in any form if it constitutes the full grain ration. It should always be fed with some lighter, more bulky feed. This is especially true if the corn is fed shelled or ground. Oats and bran added to corn makes a good combination. A small amount of cut hay would also be excellent, inasmuch as it insures more perfect mastification and renders the ration more easily digested because of its porous nature.

811—CROSS-BRED FRENCH DRAFT—Can a breeder cross a registered Percheron and a registered French draft and then register the offspring in the Percheron books?—North Dakota Subscriber.

REPLY.—The progeny of a registered Percheron and a French draft cannot be registered in the Percheron Society. The Percheron can be registered in the French Draft Association, which will entitle the progeny to registration in that association. If the French draft animal in this case was of correct Percheron breeding, so that it can be registered in the Percheron Society, then the colt could be registered as a Percheron.

812—COLLAR SORES—Are collar sores catching from one horse to the other by using the same collar on different horses?—Oklahoma Subscriber.

REPLY.—Certain types of collar sores may be transmitted in this way, particularly those that originate in the form of a pustule. It is bad practice to use the same collar on more than one horse in any event. No two shoulders are just alike so that frequent changing of collars only invites sore shoulders.

813—SHY BREEDING MARE—I have a mare that won't get in foal. I don't find anything wrong. I bred her for two years; she is five years old and imported. Would like to get her in foal. Which is the best, the capsule system or the impregnator?—Minnesota Subscriber.

REPLY.—The capsule system will give you the best results from your mare. If not diseased she should be made a producer by this means.

814—WOLF TEETH—I have a road gelding coming seven years old that had wolf teeth that were affecting his eyes. I had them taken out a couple of days ago. How long will it take his eyes to get all right after the teeth have been taken out?—Ohio Subscriber.

REPLY.—It is not recognized that so-called wolf teeth in any way affect the eyes, and the length of time it will require for your horse to recover from this trouble will be governed by the nature of the ailment and the treatment given.

815—BAD TEETH—I have a mare coming six years old. I have had a veterinarian dress her teeth twice.



WE ARE IMPORTERS
of the best blood of Europe in
BELGIAN AND PERCHERON STALLIONS AND MARES

Importation made regularly and a large selection kept on hand in season. Only horses of **high quality** handled. Prices and terms **right.** It will pay you to see our horses before buying. Favorable terms to responsible dealers. Our 1914 calendar is now ready for distribution. Write for full particulars.

W. A. LANG & CO.,
Greeley, Delaware County, Iowa

Joseph Rousselle & Sons, Seward, Nebraska

PERCHERON, BELGIAN AND SHIRE STALLIONS AND MARES

We make a specialty of good, big, rugged type and action. Our two year olds weigh from 1800 to 1900; age horses from 1850 to 2260. In fact, we can show about as big horses as are living. We were in Europe early, which enabled us to get the right kind. We are natives of France and save in buying, also in selling to customers. Prices from $900 to $1,250; a few tops a little higher; home-bred come cheaper. Will furnish a state license according to the Nebraska law. Our guarantee and terms are right. Write, or better, come and see us. Seward is 26 miles west of Lincoln. Farm joins city on the north.

IMPORTED DRAFT STALLIONS FOR SALE.

Four extra good Belgians; ages 6 to 7; average weight 2,300. One good French draft; 4 years old; weight 2,000. This is an extra good one. These have been used in our stud since imported, and we have many fine colts their gets, to show, as well as a large number of mares in foal, proving them splendid sires.

We are making a change in our business operations, and will offer these stallions, quality considered, at remarkable prices. If interested write or come and see them. Our barns are but a mile from the station, where we will meet you.

We make a specialty of buying stallions or pure bred mares on orders. If your community is in need of a good draft stallion we want to hear from you. All records are complete on each horse.

R. J. CRAWFORD & SON, MILES, IOWA. **PHONE 163, MILES.**

We Write Life Insurance on Horses.

PERCHERON, BELGIAN, SHIER AND HACKNEY STALLIONS AND MARES

Imported and American-bred; 2 to 4 years old. Prices on most all $700 to $1,000.

Lew W. Cochran, Crawfordsville, Ind.
Office 205 Ben Hur Bldg.

BELGIAN STALLION

For Sale of Trade.

He is 8 years old, bay, imported, and weighs 1800 pounds in working condition. A sure breeder of extra good colts, but he has fillies here old enough to breed and I must change. Will trade for another Belgian as good.

Edward Springer, Oaklandon, Ind.

BELGIAN FILLY

For sale. Second prize at the International, 1913. Famous D'Or breeding; sound and all right.

GEO. S. PERKINS, Route 4, Peoria, Ill.

BELGIAN EMPORIUM OF AMERICA



Largest collection of Belgian draft horses on earth. Also 20 choice Percheron stallions. The fall importation of 100 head, the second importation for 1913 swells the number on hand to 175 stallions, mares and colts. Many prize winners; many descendants of prize winners. All choice animals. We are farmers and stock breeders; twenty-eighth year in the Belgian horse business. Each year adds to our strength, and now we can defy competition in quality, quantity and prices.

Four farms, all adjoining; 7 large barns.
Write for free illustrated catalogue.

H. LEFEBURE & SONS, Fairfax, Linn Co., Ia.
(Elght Miles from Cedar Rapids.)

IRVINEDALE FARMS

Belgian and Percheron Stallions and Mares. High Class Animals Always on Hands.

Farm at Ankeny, 10 miles north of Des Moines on C. & N. W. R. R. and Ft. Dodge, D. M. & Southern Interurban. Will meet trains if notified.

CHAS. IRVINE, ANKENY, IOWA.

BELGIAN STALLIONS

Farmers and horsemen have found that horses bringing the highest prices in the markets among the draft classes are the **Belgian.** These horses show more quality, more substance, possess better legs and feet, better feeding qualities and better selling qualities than any other breed. I have for sale two of the **choisest Belgian Stallions** that you would care to look at. If you want to see a **real draft horse,** with size, color and conformation, come and see them at the **Hinckley Stock Farm** near city limits on Wataga Road.

A. E. HINCKLEY,
Tel. 151 Lincoln, Galesburg, Ill.

PERCHERON STALLION

For sale. Dark iron gray; registered in Percheron Society of America; foaled September 1, 1911; weight 1950; will mature to 2200 pounds; heavy boned; sound. Will be sold at a bargain. Also Percheron mares from 2 to 11 years old. Write at once for complete description and price.

C. SATORIUS, Wynot, Cedar Co., Nebr.

Clydesdale Stallions

For Sale.



Prize winners and **the produce of prize winners.** They are mostly of the large, drafty type; ages one to four years old. Prices and terms most reasonable. Call on or write

W. V. HIXSON, Marengo, Iowa.

CLYDESDALE HORSES

Stallions and mares of all ages for sale.

Also Shorthorn Cattle.

W. A. DeMerritt
Ronte 2, Plainfield, Ill.

FOR SALE OR TRADE

One Clydesdale stallion; coming 5 years old; grandson of Baron's Pride. Will trade for a good jack or Percheron stud colt; sound.

M. C. GELVIN, Toulon, Ill.

Could it be she has a hollow tooth, or what do you think is the cause?—Indiana Subscriber.

REPLY.—You should have asked the veterinarian what the difficulty was. We have no way of knowing. If the veterinarian you have in question is not qualified, get one that is, or give us a better description so that we can be of some service to you. It is possible that a tooth might be hollow. Please make your statements plainer so that we may be of some service.

816—CASTRATION—At what age is the best time to castrate a roadster to make a good stylish driver of him. At what age should draft horses be castrated?—Oklahoma Subscriber.

REPLY.—By castrating a road type rather young it preserves the fineness of head and neck, as well as other parts, and the operation is preferably done any time before one year. Draft colts may run a year longer if it is desirable to have them develop into the massiveness of the draft types. Of course, much is governed by how well one can care for the colt and prevent mischief coming to himself or other stock by him having been permitted to remain entire.

817—STALLION SPREADS DISEASE—Sometime back you suggested disinfecting a stallion after each service in order to keep from spreading the disease from diseased mares to healthy ones. I would like to ask you what you would use for this.—Illinois Subscriber.

REPLY.—There is no disinfectant that you can use on your stallion strong enough to destroy disease germs that would not be injurious to the penis of the stallion. Keep the penis clean by using bran and warm water mixed together. Put handful after handful up into the sheath; work it around in all the different parts, then let it come out itself. This will leave the membranes in a very nice, clean, healthy condition. The only remedy that we know of from spreading disease from one mare to the other is not to make a natural service on a diseased mare. Diseased germs are transmitted from one mare to the other by the penis of the stallion or jack. These disease germs will not make the penis of the stallion sore. The disease we have reference to is not douraine, horse pox or disease of that character. The germs we have reference to cause disturbances in the uterus which prevents conception.

818—WATER SEED—I have a fine coming two year old mule colt that was castrated at one year old. It healed nicely, but now has enlargement on both sides as large as natural seed would be, which my neighbors tell me is a water seed. Can I do anything to reduce them?—Texas Subscriber.

REPLY.—Such cases should be operated on and the enlarged portion removed. No medicine that you might apply to the parts or give internally will do the case any good. Consult a well qualified veterinarian concerning the operation.

819—SHOEING A STALLION—As I am the owner of a fine Percheron horse I would like to get your advice about keeping this horse shod behind in breeding season as I will have to do all of my breeding out of doors. We thought it would keep him from slipping at a damp, rainy time. What would you say to that?—Iowa Subscriber.

REPLY.—Unless your stallion is used on the road we would not advise shoeing a young horse; he would slip as badly with plates on as he would barefooted, and it is not advisable to have rough shoes on a stallion during the breeding season.





TRUMANS' CHAMPION STUD

The World's Greatest Collection of

SHIRE STALLIONS AND MARES **PERCHERON STALLIONS AND MARES**

BELGIANS AND SUFFOLKS TO SUIT THE MOST CRITICAL BUYERS

First 1914 importation of Shire, Percheron, Belgian and Suffolk stallions arrived Feby. 24. Thirty-five years in the business and not one dissatisfied customer. "Our prices are the lowest." Send for our handsomely illustrated catalogue. Imported Shire and Percheron mares for sale.

Special Priecs for Next 30 Days.

Mention the American Breeder. Address,

TRUMANS' PIONEER STUD FARM

Bushnell, Illinois

SIZER'S SHIRES

Stallions and Mares for Sale.
All ages—the Get of
TATTON CHIEF 8605 (20087)
The sire of more prize winners than any other Shire horse in America.

L. N. and O. B. Sizer, Fisher, Champaign County, Ill.

RECORDED SHIRE STALLION FOR SALE.

Seven years old; weighing over a ton; very gentle, proven an 80 per cent foal getter. Must sell on account of his colts. Price, $750 if taken soon. Also a stud colt; fillies of all ages and mares in foal. Must sell for cash or bankable note. Will not consider a trade at all.

B. M. BOYER & SONS, FARMINGTON, IOWA.

820—FOUNDERED JACK—Will you tell me what to do for a foundered jack, or laminitis, or something like that? I think he got too much ground wheat.——Kansas Subscriber.

REPLY.—Your inquiry is such that we feel there is an uncertainty concerning the nature of this animal's ailment, and we believe you should take him to some good, competent veterinarian in order that a certain diagnosis may be made before beginning treatment.

821—CLEANING BREEDING INSTRUMENTS—Is it necessary to boil the extractor after each service or would you cleans it with sterilized water? In case where there is but one mare to be capsuled would you use the extractor or catch some semen?—Oklahoma Subscriber.

REPLY.—There is only one successful way to clean these instruments and that is by boiling. It is not necessary to boil them very much. The extractor should be sucked full of boiling water two or three times. This cleaning process should be done before the extractor is used. Do not use any disinfectants.

822—CONTAGIOUS ABORTION — I would like to ask you if an animal ever becomes immune to contagious abortion? I think I have heard something about them becoming so.—Missouri Subscriber.

REPLY.—Yes it may expend its force and an animal reach a point where it will again become a breeder, but the experience in waiting which means three or four years is anything but encouraging.

7 SHIRE AND PERCHERON STALLIONS.

Sire and dam of Shires, imported by Trumans' Pioneer Stud Farm; dam bred by Thomas Gee of the famous Wrydelands Stud Farm of Thorney, England. Prices $250 to $650. Will meet train at Wakefield if notified in time.

James Auld, Wakefield, Clay Co., Kans. Ronte 1.

SEVEN SHIRE STALLION COLTS

American bred; 4 coming 3 and 3 coming 2 years old. They are the clean bone, rugged kind.

Also one 4 year old; weighs a ton; clean and sound. Will sell one or the lot. Worth the money.

S. BENNINGTON'S SONS, Elkader, Ia.

BELGIAN, SHIRE AND PERCHERON STALLIONS

and mares, also Standard bred stallions and mares, $200 and up. **E. P. Hamilton & Sons, Garden Grove, Ia.** (Mention this paper). 23 miles S. W. of Chariton, Ia., 82 miles south of Des Moines, Ia., at Leroy.

823—COLLECTING OKLAHOMA SERVICE—Can a service fee be collected on a mare taken under mortgage, for instance, a mortgage that was given before mare was bred. We

I STILL HAVE 4 Good Jacks



and will sell any three out of the four. They are four, five and six year olds; 15 to 15½ hands standard. Fully guaranteed. Will price to sell and not to keep. If interested, write or come and see me.

W. F. Schade,
Jackson, Mo.

Six Jacks---12 Jennets

For sale or trade for land in rain belt. Jacks from one to ten years old.
H. A. SCHWATKEN, Hammond, Kansas

Large Young Jack

For sale. Large, heavy boned registered jack; coming 3 years old next July; over 15 hands; extra large head and ear. Will mature over 15½ hands; broke to serve. All right every way. Price, $450 and a bargain for some one.
CHAS. A. GALT, Mound City, Kans.

COMING 3 YEAR OLD JACK
For sale; 14¾ hands high; black with white points; fine head and ears, with plenty of body and bone and good feet. This jack is sound and right in every way.
F. A. WINTER, Republic, Mo.

THE OLD RICHMOND JACK FARM.
I make a specialty of breeding big registered jacks, with lots of bone, substance and finish. These jacks are raised right and all good servers. I also have at all times imported and American bred Percheron stallions. Prices right. Terms to suit.
I have some extra good, improved farms for sale. Write for prices and terms.
W. H. SKIBINSKI, Richview, Ill.

Jacks For Private Sale

In order to reduce my jack stock I will sell at very much reduced prices for the next 60 days. I raised most all of my jack stock and can sell them cheaper than the man that deals in them. My jacks are all black with white points; in ages from 2 to 6 years old; in sizes up to 15¾ hands.
U. G. SAUNDERS, Flemingsburg, Ky.

JACK WANTED

I am an experienced breeder; own a registered Percheron stallion; have sold my jack lately. Would like a good black jack (not under 15 hands high) to stand on the halves this season with privilege of buying at a fixed price. Have a good stand. Will refund freight if I buy the jack.
W. A. STUART,
Box 161, Portales, New Mex.

$500 BUYS

A LARGE MOUNTAIN RAISED JACK.
I have four head of Wyoming raised jacks, from 2 to 6 years old. Bred and raised at an elevation of 7000 feet; 15 to 16 hands high; registered; pasture broke; also broke to serve at halter. Good breeders; mules to show. $500 buys your choice at my ranch.
W. H. THOMAS, Mountainview, Wyo.

Two Big, Rugged Jacks

For sale; 15 hands; 1000 pounds. One dark gray; 8 years old; one black; 9 years old. Your choice for $800. Guaranteed all right in every way or money back.
C. W. FANSLER, Prairie View, Kans.

TWO YOUNG JACKS
For trade. One coming 3 years old, one coming two years old. Will consider trade for Percheron stallion of about 1400 to 1600 pounds, or herd of registered Aberdeen Angus cattle, or herd of registered Jerseys. Tell what you have in first letter, also price. Jacks are black with white points, and nice ones. Address.
UZ CLIPPARD,
Oak Ridge, Cape Girardeau County, Mo.

LEAVENWORTH COUNTY JACK FARM.
Established 1882. 25 head of Mammoth jacks and jennets. Write for prices.
CORSON BROS., Potter, Kansas.
On Santa Fe Ry.

are somewhat handicapped in Oklahoma on account of mortgages. I have been able to bluff my way out so far, but am not sure what would be my fate if I was to go to court.—Oklahoma Subscriber.

REPLY.—We do not know what the law is in Oklahoma for collecting service fees. Will some one send us a copy of that law for publication?

824—RHEUMATISM—I have two good jennets. I bought them last year at a long price. This winter they got stiff and swelled in hind legs. One jennet had it and then the other one. It lasts about one week. Now, the one has it the second time; had to help her up. They are six and seven years old and in very good condition. They are fed fodder hay and three ears of corn twice a day, shut in barn at night and run in lot in day time. Is it rheumatism or too much corn, or not enough exercise?—Illinois Subscriber.

REPLY.—Your description sounds very much like rheumatism. Keep these animals in dry, well ventilated quarters, free from draughts of air at night and permit them to be out in a lot or pasture whenever the weather is pleasant. Oats will be a better feed than corn. A moderate amount of bright alfalfa hay would be excellent. Give each animal an ounce of salicylate of soda dissolved in water three times a day, for three or four days, then discontinue the medication for that length of time and repeat.

825—CARE OF COLT AT BIRTH—Will you kindly once more tell us through your very valuable paper, how to care for our foals when they arrive as to treatment of umbibical cord, etc.?—Pennsylvania Subscriber.

REPLY.—Carefully read the article in the March 5th issue entitled "Preventing Navel Ill."

826—CATARRH OF THE BOWELS—I have a gelding that is 16 years old; weight 1600 pounds; is thin in flesh; have had his teeth floated twice; he does not have much of an appetite; eats grain good but very little roughness. I feed ground oats three times a day and wheat vetch hay. He scours most of the time; I changed roughness to oat hay but he still scours and does not pick up. I work him just about enough for exercise.—Oregon Subscriber.

REPLY.—Your animal is suffering from a disturbance of the bowels and is not going to do any good until you feed him roughness somewhat the nature of prairie hay. Give him an ounce of Fowler's solution in his feed twice a day, morning and night, and a level tablespoonful of golden seal mixed with the feed at noon. Do not water him shortly after eating his meals and give him slow work only.

827—A TIMID JACK—I have a coming five year old jack; he is very timid about serving. Sometimes he serves good and sometimes it is almost impossible to get him to serve certain mares. If a mare switches her tail or makes much racket he seems to be afraid. He has never been kicked or hurt by a mare. He won't hardly serve in a pit, but the minute you take a mare out he gets ready and serves. He was never hurt or scared in a pit that I know of. This is a show ring jack and I would like to get him right.—Indiana Subscriber.

REPLY.—Do not attempt to serve a mare that is not in good heat. Put a good, substantial set of hobbles on your mare; have a good strong man take hold of this mare's head as though he intended to hold her perfectly quiet. Push her head up as the jack makes the mount so she cannot kick or make any disturbance. If a mare is liable to be afraid of a jack it would be well to lead the mare up to the teasing pole and let him tease her just a little. Do not encourage this too much, just enough to get her acquainted. If he forms the habit of teasing it may be necessary to do it all the time. Any mare which would not stand good for this jack should be bred with a capsule. Do not take any chances on getting him frightened. Be very gentle with him; let him know that you are not going to get him hurt. After the season warms up, and he makes services promptly, get the mare over a little closer to the pit, then when some good, gentle mare comes in to be bred, put her in the pit.

If your jack fails to work in a regular jack pit, make a special pit for him by placing an oak plank on each side, 2x6 and about ten feet long. At the front end raise them about three and a half feet and let him run back to the ground. These planks will lay flat so that in case the jack should get his foot on the board it would be wide enough for him to rest on. If oak planks cannot be had, 2x10 would probably be strong enough, made of pine. Place a 2x4 in front of the mare; bore holes in the planks and the 2x4 so that bolts can be slipped in and hold the mare back to the correct position in the pit for the jack. This is a very convenient pit for a stallion. With a little care your jack should serve in a pit of this kind very nicely.

828—UDDER FAILS TO DEVELOP—I have a young mare that her time to foal is in about a month and she isn't making any bag. What is the cause and what should I feed her to make her spring bag?—Kansas Subscriber.

REPLY.—You state that this is a young mare so you certainly do not expect her to make as large a bag as a mare that has produced colts. Again there is a difference in the milking qualities of mares just the same as there is in cows. Simply feed her good, nutritious food, such as oats, bran, a little oil meal, alfalfa and good timothy or upland prairie hay and be content to await the results of foaling time.

829—CARRYING SEMEN—Could a person breed a mare and travel her some 20 or 25 miles then draw the semen from her and breed other mares with a capsule, or would she lose it in that time? I thought perhaps it would be better to do it that way than to take it and try to carry it that distance in a bottle.—Canada Subscriber.

REPLY.—We do not wish to encourage this kind of breeding. Some breeders are having good results carrying semen a long distance, but we do not wish to have our new readers experiment with this plan until they have adopted this method successfully in their community. Mares have been bred and taken a considerable distance where they have been used for transporting semen successfully.

830—BLOODY DISCHARGE—I have a jack colt two and a half years of age that upon the first service this season I noticed a watery and bloody discharge from the penis. What is your opinion of that?—Colorado Subscriber.

REPLY.—The bloody discharge

(Continued on page 18.)

HOME OF THE GIANTS.
100—JACKS AND JENNETS—100
"Our motto is from good to as good as grow." Some real herd jacks. Our jacks are all Mammoth and are the big, thick, big boned; big footed kind. Raised mostly by ourselves and our neighbors. Every one guaranteed as represented.
BRADLEY BROS., Warrensburg, Mo.
65 miles east of K. C. on Main Line Missouri Pacific.





Missouri Registered Mammoth Jacks and Jennets

FOR SALE AT ALL TIMES.
As fine a bunch as can be found on one farm. Guaranteed as represented. Prices right. Come and see them.
J. T. WATSON,
New London, Ralls County, Mo.

JACKS, JENNETS, PERCHERON MARES

We wish to announce to prospective buyers that we have 23 head of jacks—the good kind—raised on the farm, ready for sale this spring. This is strictly a breeding farm, no brokerage; 50 breeding jennets, headed by Paragon and Jumbo Mammoth, two great jacks.
Ten imported Percheron mares, headed by imported Kossuth, the best that money could buy in France; a span of coming two-year-old fillies; a coming two-year-old stud, will make a ton horse. The offering this year at reasonable prices.
OAKLAND STOCK FARM, BOX 207, CHILLICOTHE, MISSOURI.

40--Big Black Jacks and Jennets--40



Come to one of the oldest jack farms in Missouri. I make a specialty of breeding the big kind; extra big bone; big bodies. My barns are full of big young ones from 2 to 6 years old; 14 to 16½ hands.
ED BOEN, LAWSON, MO.
(Lawson is located 38 miles northeast of Kansas City on the C., M. & St. P. Ry., also 40 miles southeast of St. Joseph on A., T. & S. F. Ry.)

KENTUCKY JACK AND PERCHERON FARMS.



Two hundred head of big bone Kentucky, Mammoth jacks; saddle stallions, mares, colts and fillies. The jacks and saddlers you want are here. 2500 bushels of blue grass seed. Our prices and terms will suit you. Write us your wants or visit our farms.
COOK & BROWN, Proprietors.
LEXINGTON, KY.

JACKS.



The kind all are looking for; large boned, black Mammoth Tennessee and Kentucky jacks; 3 to 6 years old; guaranteed and priced to sell; all broken and prompt servers. Reference, banks of Lawrence, 40 miles west of Kansas City, on U. P. and Santa Fe.
AL. E. SMITH, Lawrence, Kan.

$400 EACH

On 18 Months' Time.



Purchaser to keep animal insured. Two good jacks, 2 years old; black, white points; broken; registered; sired by Gov. Foster 1716; a 1,250 pound jack.
E. E. LAUGHLIN, FOSTER, BATES COUNTY, MO.
(Postoffice, Rich Hill.)

SOME EXTRA GOOD JACKS AND JENNETS.
For sale, as good as they grow anywhere. Some of these jacks will mature into 1200 and 1300 pound jacks with as good a bone, body, style and finish as you see anywhere. Ages from 8 months to 8 years old. If you want a good young jack or jennet at a reasonable price, write or come and see them. **HENRY OBERMANN,**
Frelstatt, Lawrence County, Missouri.
27 miles north of Monett, on Frisco Ry., and 6 miles southwest of Hoberly on Missouri Pacific.

FIRST AND LAST AL

I lost my horse and am going to close out all jack stock as follows: jacks 15 to 15½ hands; 900 to 1000 pounds, 3 to 5 years old, including my herd jack, Wainscott's Jumbo 41. Colts to show. Send for his picture. These jacks are strong in Dr. McC blood.
F. A. WAINSCOTT, Calhoun,

BLACK MAMMOTH JACKS.
Own breeding; from 2 to 5 years. Must sell some at once to make room for other stock. Will price right to sell at once. All big ones.
TRUESDALE STOCK FARM,
Speed, Cooper County, Missouri.
Trevor H. Moore, Prop.

Fine Kentucky Jacks For Sale



Will be in Hlawatha, Kas., about March 6th with a car load of fine Kentucky jacks for sale privately. Anyone wanting a jack call and see our stock.

Also have 40 head of jacks and jennets at our home, **Poplar Plains, Ky.**, for sale privately. Ages from one to four years. **SAUNDERS & MAGGARD.**

JACKS



Kentucky Bluegrass bred and raised; the foundation of all other states. Old Honesty has the blood lines of all who have made success and fame in the jack business. Write your wants or come to my barn at Greendale. Electric line right at door. Stop 10.

S. C. NUNNELLEY,
Lexington, Ky. Route 6.

25 JACKS AND JENNETS 25

For sale. I am pricing to sell. I have them from colts up. I have lately added several good ones, and now have some of the best I have owned.

R. M. JOHNSON,
Bolivar. Missouri.



JACKS.

20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.

Phil Walker, Moline, Elk County, Kas.

25 Mammoth Jacks and Jennets

For sale. I have more high class jacks and jennets to offer the public this season than I have ever had before. They are bred right; priced right, and fully guaranteed.

JAS. M. SPURGEON,
Williamstown. Lewis County, Mo.

JACKS AND MULES.



Eighteen jack and mule farms under one management, where can be seen 380 head of fine large jacks, pennets and mules, 14 to 17 hands high. Good ones. Stock guaranteed.

Write for prices today.

KREKLER'S JACK FARM,
WEST ELKTON, O.
Branch Barns, Clinton, Indiana.

GOOD KENTUCKY JACKS AND JENNETS FOR SALE.

1 herd jack, 16 hands, 35 inches tip to tip of ears, 9½ inch bone, biggest of feet, and one of the biggest and best jacks in Kentucky; a great sire of both jack and mule colts.

12 good jennets, all right, and black with white points. I advertise because I want to sell and I'll sell them worth the money. **W. L. Garriott, Route 2, Smithfield, Ky.**

4 Mammoth Jacks



For sale; 1 to 6 years old and two jennets 6 years old; in foal. Want to sell by spring.

WM. GROTHE.
Flint Hill, Mo.

THREE JACKS FOR SALE—From 3 to 5 years old; about 15¼ hands high; large, heavy bone and registered. All black with white points. Price reasonable if sold soon. Address **S. A. FARNSWORTH, BLAIRSTOWN, MO.**

14 GOOD BREEDING JACKS.

Also imported Percheron and Belgian stallions; some weigh 2160 pounds. Stock for sale on long time payments, 1, 2 and 3 years at 6 per cent.

R. I. LITTLE, Route 2. FAIRFAX, IA.

JACKS AND JENNETS

For sale; seven jennets, four jacks; 13, 13½, 14½ hands; all young; must be sold. Would trade for young horses or mules.

W. C. FITHEN Richville, Minn.

IS THIS THE BEST JACK IN IOWA?

To the American Breeder:—I am sending you measurements of my jack, just purchased in February, 1914. He will be three years old in April. He measures: Below knee, 8¾ inches; around knee, 14½ inches; around hock, 17½ inches; heart, 66½ inches; ear, from tip to tip, 35 inches; height, 15 hands. I would like to know of any other jack as good in Iowa.—J. J. Ernest, Davis County, Iowa.

THESE JACKS MAY HAVE SHOWN ON DIFFERENT YEARS.

To the American Breeder:—I see in the American Breeder of March 5th, page 19, where Mr. John Thralls, Caddo County, Okla., says he owns the jack that won sweepstakes at Hutchinson and a three year old first in his class.

Now it looks very much like Mr. Thralls has been "buncoed" if he bought what was represented that way. Pharaoh, the jack that won first in the American Breeder jack show last September, was champion, and Kansas Chief won first in three year old class, and we own both those jacks at the present time, so it is impossible for them to be owned in Oklahoma. If there is any doubt in the mind of Mr. Thralls in this matter he can write to Mr. A. L. Sponslor, Secretary of Kansas State Fair at Hutchinson, Kans., and he can satisfy him.—H. T. Hineman & Sons, Lane County, Kas.

MR. RICKARD STANDS HIS GROUND.

To the American Breeder:—Some months ago I gave some advice to "Montana Subscriber" through the Breeder. I repeat some of it. Mares ranging in weight from 800 to 1,100 pounds should be bred to stallions of the roadster type, carriage or saddle type according to their conformation. Some of these mares are no doubt rougher in build than others and on such mares a good, smooth, clean, upheaded Morgan stallion would cross to a good advantage, and the smooth turned mares bred to a good, clean saddle stallion. The offspring from this mating would find ready sale, for the government wants them both at home and abroad. Some of the larger mares I would breed to a Standard bred race stallion for carriage horses, which find ready sale in nearly every city, at good prices, if city broken. I would discourage any one in the breeding of 800 to 1,100 pound mares to a draft stallion as such a cross is a failure in most cases. The small mares cannot feed the offspring while in the foetus to develop the foal to what it should be at four months of age. So we find that the largest per cent of the offspring of the small mares and draft stallions have but one end, that is saleable for any purpose but the farmer and the plug classes.

I am a Morgan breeder and fancier but have never allowed my stallion to breed a draft mare, as I do not believe in crossing that way and I never would allow a draft stallion to breed a small mare for me.—E. A. Rickard, Ashtabula County, Ohio.

BIG MULE MAN BUYING JACK STOCK.

To the American Breeder:—I have just sold to W. R. Crackel of Vincennes, Ind., my fine three-year-old jack, King Curtis, for $1500. Also to the same man 15 head of extra good jennets at fancy prices. This makes three jacks that I have sold in the last year for $4500. I give credit to the American Breeder for all the above sales, as each customer of the above stock was brought to me through my ad in the American Breeder. I am advertising in several other papers but this paper gives me better results than any other one paper. I have several more jacks from 15 to 15½ hands high, of the thick kind, that I will sell at reduced prices for the next 60 days.—U. G. Sanders, Fleming County, Ky.

READY FOR A MULE SHOW.

To the American Breeder:—I notice in your issue of February 20 that Mr. Alexander of Illinois suggests a mule show to be given by the six winners of the "Jack Show" of the gets of their jacks. Good! As one of the "six" I am ready and more than willing.—J. W. Maupin, Shelby County, Mo.

HAD IT FOUR YEARS; WANTS THREE MORE.

To the American Breeder: I did not know when my time expired on my paper, so I want it for three years yet. I will enclose $1.00 to have it renewed. I am thinking of selling my horse and jack. I have a full-blooded Percheron horse and a registered jack. I may put an ad in your paper, I have not decided yet. Your paper is all right, for I have used it. I have taken it for four years, and want it longer. I see in the last paper about a man complaining; I think it is all right.—Ben Richardson, Schuyler County, Ill.

30 Head of Jacks For Sale

From Two of the Best Herds in the State of Kansa

From 14 to 16 hands high; 2 to 6 years old. Nicely broken and good workers. Good serviceable jacks and prize winners. We won more premiums at Hutchinson State Fair last year than all other exhibitors combined. Everything guaranteed as represented. Write us your wants, or visit our farms.

H. T. HINEMAN & SONS, Dighton, Kas. D. J. HUTCHINS, Sterling, Kas.

DEIERLING & OTTO'S
MAMMOTH JACKS AND JENNETS



40 head big, black Mammoth jacks, 25 jennets—the big, wide-out, 15 to 16 hands kind; from yearlings to 6 years old. Mostly two's and three's of our own breaking. Black with white points; heavy boned and good, including our 1913 prize winners.

We have a splendid lot of young jacks, jennets, Percherons, Saddle, Coach and Trotting horses to trade. Correspondence and inspection invited

DEIERLING & OTTO, Queen City, Mo.
Main line Wabash—St. Louis-Des Moines Line.

MAMMOTH JACKS AND JENNETS.

Our specialty is herd headers. Have them as good as grow. 48 years a breeding stable, have succeeded because we use the best that money will buy. Satisfaction guaranteed.

G. M. SCOTT,
Rea, Andrew County, R. F. D. 2, Mo.



300 HEAD of Colorado raised Jacks, Jennets, Mules and Brood Mares. All guaranteed. Prices right. **Lewis Swink & Son, Rocky Ford, Otero County, Colorado.**

For Sale or Trade

Five-year-old black jack; 15 hands; sound and a good breeder. Take good jennet or driving mare or gelding (saddler preferred) as part pay. Give full description first letter.

JOE S. COLLINGS,
Russellville, Ind.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address

J. C. HUCKSTEP,
Eolia, Pike County, Mo.

8--MAMMOTHJACKS--8

For Sale—from 3 to 5 years old; 14¾ to 16¼ hands standard measure; good breeding; broke right. Also a few jennets. One black imported 7-year-old Percheron stallion. Priced to sell. Stock in town.

L. W. HOYT,
BARRY, Pike County, ILLINOIS.

"WE HAVE WHAT WE ADVERTISE"
For Sale.



15 head of big black jacks; 3 to 6 years old; 14½ to 16 hands. Big bone, heads. The right kind.

Also some draft and saddle stallions. All priced to sell.

MILTON GUSTIN. Edgerton, Mo.

6-JACKS--6
17-JENNETS-17

The jacks are three and four years old, and they and the jennets are all good stock. All black with mealy noses. I want to close them out this spring, and will make the prices right

JOHN A. EDWARDS, Englewood, Kas.

MAMMOTH JACKS

For sale—Large, heavy boned, 15 to 16 hands high. Prices from $250 up. Located eight miles west of Cedar Rapids, Ia., near Fairfax.

JOHN HENRY, Fairfax, Ia.



50 registered, b l g boned black jacks and jennets. Colts to 16 hands; big, stylish, good lookers; great mule jacks. **J. H. SMITH, KINGFISHER, OKLA.**

FOR SALE

Three extra good jacks and one Shire stallion.

H. H. EISENBATH, Wentzville, Mo.

JACKS FOR SALE.

Seven first-class jacks; ages one to six. Bred right; raised right. Priced to sell. Colts to show. Mares in foal for those of proper age. Also some good jennets; ages one to seven.

L. W. Garriott, Austin, Scott Co., Ind.

JACKS FOR SALE.

Seven Tennessee jacks; good ones; black, with white points; weight, bone and style; two to six years old; 15 to 16 hands high. Write me.

A. G. BUSH, Fairland, Okla.

For Sale

One car load of good young mules, two and three years old; one car load of draft horses and mares.

R. G. DALTON, La Junta, Colo.

Jack For Sale

Choice Mammoth jack; weight 1150; height 15.3 standard; good performer; sure breeder; eight years old. One 3 years; 8 months; good performer. Will be as large as the other one. Will sell either one. Both smooth and good looking. Any one wanting the best, better see them.

A. CALENDER, New Lyme Station, O.

Wanted---A Black Jack

That will mature to 1200 pounds, for which I will exchange a registered Percheron stallion coming four years old; gray; sound and right; heavy bone and broke to work. Write

DR. H. A. ALCORN,
Adair, Iowa.

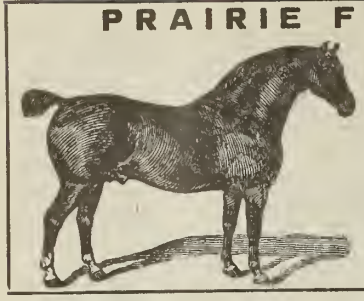
JACKS FOR SALE.



We have 16 jacks for sale; all black with white points; lots of bone, size and quality; from 1 to 8 years old.

SCOTT & ABNEY.
Virden,
Macoupin County,
Illinois.

PRAIRIE FARM HACKNEYS



FOR SALE—One aged English Hackney Stallion, Cedar Matchless 7401 (E. H. S. B.), 1345 (A. H. S. B.) Bay. A grand breeder. One fine bay stud colt, foaled June, 1910, a high-class colt, home bred, sire and dam both imported; dam a sweepstakes winner at the big shows. One chestnut stud colt, foaled May, 1912. A crackerjack. Would exchange aged horse for a good imported Hackney stud.

Also have a few cracking good fall Duroc Jersey boar pigs for sale, show prospects and herd headers.

E. M CASTLE & SON,
Route 3, Joy, Ill.

STALLION AND JACK

I have two Percheron stallions, both prize winners at the Kansas State Fair at Topeka, 1913. They are sound and guaranteed right in every way. I would sell either one of the two and use the other one.

Also coming three year old jack; large and heavy boned; black with white points. Priced worth the money.

J. F. TRUE, Jr., Perry, Kansas

CLOSING OUT
AS I HAVE OTHER BUSINESS.

One registered Belgian stallion, 12 years old; has weighed over 2,000.

One registered saddle stallion; weight 1,260.

One 15-hand jack; extra heavy bone and feet and ears; with plenty of length and width. The jack is 12 years old and has never been crowded; is the surest jack I ever handled; good worker any kind of weather on mares; will work on jennets with mare for teaser.

Also one yearling jack, coming two, and three jennets; two jennets eight years old; one has raised four jacks, the other, three jacks and one jennet; the other jennet is three years old; one of these jennets will foal early, the other due in fall. All black with white points.

The above stock are all good breeders and sure. No trades.

O. T. KARR, Quitman, Mo.

TWO STALLIONS—ONE JACK

For sale. One imported German Coach; dark bay; weighs 1500; coming 10 years old; an extra breeder. One black three-quarter Percheron, one-quarter German Coach; weighs 1400; coming 4 years old; will make 1600 pound horse. One registered black jack, white points; 10 years old; 15 hands high; extra heavy bone and good breeder. Price $1,000 for three. Am going out of the business.

H. H. SANDERS, Spring Valley, Ark.
(15 Miles East of Springdale.)

For Sale Immediately

One two year old Percheron stallion; one yearling Percheron stallion; one Mammoth jack and four jennets, cheap for immediate sale or would trade for cows or heifers.

J. W. BARBER,
Skidmore, Mo.

French Draft Stallion and Young Jack for Sale

The horse is registered; 7 years old; weighs 1800 and is a sure foal getter. $900. Jack colt; 3 years old, $325.

Nick Bishop,
Bisbee, No. Dak.

Two Stallions

For sale. One registered; 6 year old Percheron stallion and one 7 year old Standard-bred stallion, grandson of Dan Patch. These are show stallions. Might take good jack as part pay.

A. M. PERKINS, Campbell, Mo.

GRADE HORSES FOR SALE.

24 head of grade Percheron geldings and mares. About half of each kind; from 3 to 7 years old; weighing from 1,200 to 1,600 and over. These horses were all raised on my place, and are the cream of my bunch; very gentle; all have been handled and some well broke. If interested please come and see them, or write, **Andrew G. Johnson, P. O. Box 14, St. Joseph, N. D.** Nearest R. R. Station, Glen Ullin, Morton County, N. D., on the N. P. R. R.

JACKS AND STALLIONS

For sale. Registered jacks; all black with white points; from 15 to 15¾ hands; from 3 to 6 years old; well broke and as good as grow.

Percherons from 2 to 8; the big, good kind, weighing from 1700 to 2100 pounds; all guaranteed as represented

J. E. PARK, Owner. CAMERON, MO

Questions and Answers

Continued from Page 16

might have been provoked by the intense erection accompanying the service and may not affect the animal later, provided you do not permit him to serve mares too frequently.

831—NEW YORK COLLECTION LAW—Will you please publish the New York state stallion law on collecting service fees?—New York Subscriber.

REPLY.—We do not know the New York Collection Law. Several states changed their laws at the last legislature. We would be glad to have our readers send in the laws for collections of service in the different states, and especially all of the new ones.

832—LEUCORRHOEA—I have a 12 year old mare that has been a sure and profitable breeder in the past. This mare raised six colts in succession, but in the last two seasons have failed to get her in foal. This mare has a little cough and when she coughs she has a whitish discharge at the vagina and occasionally bites herself across the kidneys. This mare is in fair flesh and a good eater.—Ohio Subscriber.

REPLY.—It is quite likely that your mare has a catarrhal condition of the genital tract and it will be a question if at her age she can be relieved so that she will again produce. Take the matter of her treatment up with your local veterinarian in the event an up-to-date man is available.

833—JACKS TO CANADA—Is Canada too cold a country for a jack? I am told that is the reason there are none here. It is so cold they won't serve mares.—Canada Subscriber.

REPLY.—Jacks can be shipped to Canada in the summer and go through the winter with fairly good results. Mules can be successfully raised in the North, but the demand for mules is in climates where the snow is not so deep, owing to their small feet. There is a good demand for mules raised in the North. There are a lot of inferior mares all over the northern states that could be bred to jacks with profit. An enterprising breeder can contract mule colts at a stipulated price, and make money. Mare owners in the North will breed their mares if they know where to sell the colts at a good price. We should like to see more Northern breeders raise mules. It affords an opportunity to use the inferior mares for a good purpose. We should like to see the southern breeders raise more mares. It is only a question of time until the mares in the South will be very scarce. In many communities of the South the mares will average over 12 years of age at the present time. In some sections 80 per cent of the mares are bred to jacks. The demand for mules is increasing. Many of the larger cities are taking them at big prices. There is a good opportunity for the northern breeder to buy jennets and raise jacks. In the colder climates a little better results can be expected from jacks raised in the North when used in a cold country.

834—CHRONIC FOUNDER—Will you please tell me what to do for a horse that has been foundered over a year now. Does it do any harm to drive her on the road much?—North Dakota Subscriber.

REPLY.—A case of founder of a year's standing is very difficult to relieve and the average individual does not, as a rule, have the patience to carry out the treatment necessary to relieve thes cases. The animal should be discontinued from road work, and kept on soft, moist ground as much as possible. Median neurectomy usually relieves these cases and is to be recommended. Consult your veterinarian on this point.

835—BREEDING BARNS—I am thinking some of building me a basement barn. I want the walls to run two feet above the ground so as to have ample space for windows to afford plenty of light and ventilation. How deep should I build the basement to give ample room to breed mares in this stable in case I should ever want to use it for that purpose.—Canada Subscriber.

REPLY.—We would advise a ten foot ceiling in your case. You will also find it profitable to make large windows at the top so that you can have as much sunshine as possible. Special precautions should be given this barn so as to keep it dry. Most basement barns are very disagreeable during rainy times. Ordinarily we would advise against building basement barns except in the extreme North. The average breeder will find it more convenient to build a barn or shed specially for breeding. In most sections a barn of this kind can be filled with hay or roughness after the breeding season and be disposed of or used before the season begins again in the spring. Some breeders use a large shed. If the breeding hour is advertised for an afternoon service, the east part of the shed may be left open so the morning sun can disinfect it. Those using the barn in the forenoon should leave the west side open. An arrangement of this kind is not very expensive and it affords an opportunity to have all the breeding and teasing done away from the other stock. The object in making arrangements to have the breeding done so that the sun will not be shining in the shed while the breeding is going on, is that the direct rays of the sun destroy spermatozoa. Semen is not destroyed in a shaded place.

836—ENLARGED TESTICLES—I recently purchased a stallion and I discovered that his left testicle is larger than the right and looks to be deformed on the back part. Do you think this will interfere with his breeding? The horse is 12 years old and in good health.—Montana Subscriber.

REPLY.—It is not often that the testicles of a male are found to be exactly the same size. It would depend somewhat on the relative difference in size, together with whether or not there were adhesions. Even if one testicle had been injured it would not necessarily disqualify him as a breeder.

837—CAUSES AN ABORTION—Does the neck of uterus, when opened up before breeding, then close up tight and get hard in 21 days? I opened the uterus of a mare before I bred her, and retried in three weeks. She refused the horse. She opened up but not like I would like to have her, so I examined her and found the cervix closed and hard. I let her go supposing she was in foal, but she is not. Do they close up that way and not be in foal? I had another mare that was in the same shape; I refused to breed her again and the owner insisted on me opening her again, but I would not and she is with foal. Do you suppose the first mare aborted shortly after she was bred?—Iowa Subscriber.

REPLY.—A speculum should be used in making this examination. It is dangerous to manipulate the cervix as the mucous plug is liable to be broken; in that case infection takes place and liquifies the plug which results in abortion. When a mare has been bred and the cervix is open, the next time the examination should be made carefully.

838—WIRE CUT—About four years ago I had a colt get cut on barb wire just above the hoof and about the same time some one else had one cut also and you gave a prescription in the "Stallion and Jack News" that was excellent for healing wire cuts and calk cuts about the feet. I gave that copy to my neighbor and lost the recipe. It was very healing and kept out the proud flesh. If it is possible I wish you would give it again through the American Breeder.—New York Subscriber.

REPLY.—We do not just now remember what was prescribed in these cases, but you will find the following very good for wounds of this kind: Zinc Sulphate one and one half ounces, sugar of lead, two ounces, carbolic acid, sixty drops, rain water (boiled) to make one quart. Shake well and apply to the wound two or three times a day.

839—CAPSULE BREEDING DEVICE

Stallion For Service

Council Chimes 2:07½; pure bred license No. 1769.

A demonstrated speed sire; sire of Minnie Chimes 2:04½, and many others in standard time. Liberal terms on application. Write for pedigree and information.

I have a good French draft stallion and a big grey jack for sale.

DR. D. H. BIBENS, Larned, Kans.

BROWN STANDARD TROTTING STALLION FOR SALE.

No. 56573; coming 3 years old; sound; weight 1130. Kind in all harness. A trim, smooth fellow.

A. K. CHANDLER, Kellerton, Iowa.

STANDARD BRED HORSES

For sale. Consisting of a Standard bred stallion and a two-year-old trotting gelding, 2:21 class pacer. Write for particulars.

DR. W. M. WEGMANN, Bladen, Nebr.

REGISTERED SHETLAND STALLION
For Sale or Exchange

for another one equally as good. Black; 41 inches; 7 years; gentle and good enough to head a herd. Reason, I have some of his filly colts that I would not part with. I want one old enough to serve 12 mares.

BILLINGS PONY FARM,
Athensville, Illinois.

EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Ponies for sale. **W. H. Fulcomer, Belleville, Republic County, Kansas.**

SHETLAND STALLIONS.

To lease, for season of 1914. Spotted and solid colors. Mares, colts and geldings for sale.

GEO. H. SIMPSON, Wheaton, Ill.
25 miles west of Chicago.

DAKOTA RANGE HORSES AND MARES

For sale. Plenty of bone and quality. Mares safe in foal. Most of these horses are Shire and Percheron crosses. Can match some nice teams.

H. L. BREKKE,
Lindsay, So. Dak.

FOR SALE, IF TAKEN SOON.

Black Percheron stallion. Small star and snip. Registered in P. S. of A. Four years old. Weight 1,900 lbs. He is a low down blocky horse with two broad ends and a wide back. Stands up straight on his limbs. A sure breeder. Has a very large bone and is a show horse. State license. Sound and right in every way. Any boy can handle him. Price, $900.

Also his half brother, black with star and small spot on nose, coming 2 years old. Sound and right in every way. Is registered and will make an 1,800 pound horse. Price, $200.

Also Clydesdale stallion, coming 3 years old. Strawberry roan. Perfectly marked. Registered in American C. D. Association. No. 17501. Is a grand son of Benedict (10315) 9300. He is a low down blocky horse. Weighs 1,700 lbs., and never was defeated in the show ring. Has a large neck, stands straight on his limbs. With great style and action. Sound and right in every way. Price, $550.

Can't use these horses on my mares is the reason for selling. Also 2 registered Clydesdale mares. Heavy in foal. Sound and right in every way. Weight, 3,600 lbs., when matured. Price $700. If this stuff is not as I say they are, I will pay expenses. Would consider a deal on a good young jack, or will pay cash for one if priced right.

C. H. WEMPE,
Seneca, Nemaha County, Kansas

THE MORGAN HORSE CLUB

Offers its services free, as a Bureau of Information, regarding Morgan horse matters, and as a Clearing Exchange, to bring together those who want to buy or sell Morgan horses.

In order to meet the demand for Morgan horses, which is steadily increasing, and which for some years has exceeded the supply, every owner of a Morgan mare should see that she is bred this spring to the best available Morgan stallion. This Club offers to help every breeder locate the Morgan stallions standing for service near his place.

If those who want to buy or sell Morgan horses will communicate with the secretary of the Club, he will endeavor, without charge, to bring these buyers and sellers together.

The 1914 Catalogue, blank forms of application for membership in the Club, Catechism on the Morgan horse, information about the Club's Futurity Stake for Morgan foals of 1914 and various other literature may be obtained by applying to

C. C. STILLMAN, Secretary,
165 BROADWAY, NEW YORK CITY.

REGISTERED MORGANS.

My Morgans are large; 15 to 16 hands and 1050 to 1300 pounds; have clean, heavy bone and possess all of the stylе and endurance for which the breed is noted.

Having bought Headlight Morgan to head a selected stud of The Admiral mares, The Admiral is now for sale. He is 15¾ hands high; weight 1250 pounds, and is the greatest all-round horse I know. I have 200 of his get on the place; part of them for sale.
RICHARD SELLMAN, Rochelle, Texas.

Morgan Stallion

For sale: A fine, large, registered horse; coming three years; dark chestnut; will mature around 1,200 pounds; sound and a good looker.

E. E. TREDWAY
Warsaw, - - - - - Ohio

REGISTERED MORGANS, SHETLANDS AND PERCHERONS FOR SALE.

Morgans coal black; Blackhawk blood; mature 15½ hands; 1,200 pounds. Shetlands, part imported; some sired by David Harum. Morgan and Shetland stallions, mares and fillies from weanlings to mature ones. Priced from $50 up. Imported Percheron stallion; gray; 2,100 pounds; good individual and breeder. Price, $400. Please describe what you want in first letter.
G. F. BROWN, Derby, Iowa.

Registered Morgan Stallion

For sale. A prize winner.

G. F. GILMAN,
Harristown, Ill.

MORGAN AND PERCHERON HORSES

For sale. One very handsome, large two-year-old bay Morgan stallion; two fine large yearling studs and one handsome very stylish, yearling bay filly. All recorded. Two good recorded yearling Percheron colts; one gray stud; one black filly. All guaranteed sound.
J. L. BUCHANAN, Sherodsville, Ohio

SADDLERS FOR SALE.

Registered stallions and mares; all ages. Also a few Hereford bulls.
J. A. GREENWELL, Lakenan, Mo.

I am enclosing a circular which I received some time ago explaining a capsule inserting device. Will you please look it over and answer through the American Breeder whether you think it to be practical or not, and whether it would be better than the present method of inserting the capsule with the hand.—Kansas Subscriber

REPLY.—The capsule should be kept enclosed in the hand and inserted into the mare as quickly as possible. Do not give the fluid an opportunity to spill.

840—ABORTION—I have a driving mare that is about 18 years old and for the last 12 years has raised a colt about every year with the exception of about two years that she happened to miss. I have been breeding this mare to a Percheron horse right along although she was small; perhaps she should weigh 1000. This mare was due to foal April 9, and on March 2 she aborted; found the colt with mare in the morning dead. I had her in a large box stall most of the winter. I fed this mare corn and hay but about one month before she lost her colt I had been feeding her oats and hay. This mare to my recollection did not have the harness on after she was bred until she aborted, in fact, didn't have much exercise as she was breachy and I could not very handy have her out to pasture. She was in the same barn where two cows aborted. What caused her to abort? Can you give a reason for it? When I found this colt I noticed back on its hind parts there was white, slimy stuff. Perhaps that indicated a contagious nature of disease. I have a stallion, would you advise breeding him to this mare again this year or not? If a stallion has been exposed to an aborted mare one season will it stay with the horse more than that season, or will the germ carry over until the next year?—Pennsylvania Subscriber.

REPLY.—Abortion is sometimes induced through sympathy, particularly in animals of the same species. You should under no circumstances breed a mare that has aborted from any cause your stallion by natural service. Such mares should be treated and properly cleaned up and when right should be bred with capsule.

841—NEW METHOD OF CASTRATION—I notice in January 20 issue an article speaking of the new method of castration by injection. Now I am a graduate of the Graham Scientific Breeding School and this was spoken of by a Professor and explained to the class last November, but there is one thing I have forgotten and the question I wish to ask, is it necessary for the testicle juices to be kept at body heat so as to keep the sperm cells alive? Would it be possible to keep this injection on hand several days or a week if needed, if one were to put it in a clean bottle and place it in a dark, warm place? My reason for asking all this is that I have a ridgling colt coming three years old that I wish to castrate and believe this to be the safest plan.—Kansas Subscriber.

REPLY.—You should take this matter up with a veterinarian who is up-to-date.

842—LAME MARE—I have a three-year-old mare that appeared a little lame last fall so I quit working her. A short time after this her leg began to swell down low close to the fetlock joint as though there was serum or water in it as it is soft. This swelling extends now almost to the hock; it is three times as large as it should be. She is so lame she can scarcely step on that leg. It is soft as though it was full of water. The local veterinarian here thought last fall that it was tendonitis, but it does not appear to me to be any inflammation at all. What do you call it and what line of treatment should I follow?—Nebraska Subscriber.

REPLY.—On account of the chronic character of this case we would advise that this animal be severely line fired, which work should not be undertaken by any one but a well qualified veterinarian. You will gain nothing by waiting, for by so doing you are only encouraging a permanent cripple.

843—LENGTH OF GESTATION—July 10, 1912, I bred a mare and retried her in 21 days. August 14, 1913, she foaled a nice mare colt all right in every way. Was this colt from my horse? She had running with her her own yearling colt which the mare owner thinks is the sire of the colt. This mare was badly locoed but was in good condition.—Montana Subscriber.

REPLY.—It is possible for a mare to carry a colt more than 13 months. It is not likely that the colt is sired by the yearling sire.

844—BOG SPAVIN AND THOROUGHPIN—I have a 1300-pound; six-year-old mule that has a bog spavin and thoroughpin started last winter. I showed it to two horse doctors and one said to blister it, or slush it off, as he says. The other man said to open it and to inject medicine and dry it up. Which method would you prefer? Mule is not lame.—Oklahoma Subscriber.

REPLY.—Inasmuch as your mule is not lame we do not believe you are justified in undertaking to treat the case by either method proposed. While injections into these parts are sometimes practiced with good results, it is quite likely that the enlargement cannot be entirely removed, therefore, our advice is to let well enough alone.

845—TREATING MARES—I have a mare 13 years old, not in foal. When she urinates there is a white substance left. I am afraid it is leucorrhoea. Would it be all right to breed her if she should have some treatment first? What would you recommend?—Nebraska Subscriber.

REPLY.—It would be safe to breed your mare after she has been treated. You will find full details for treating mares in the next issue. We have received many inquiries concerning the treating of mares which are being held over until the next issue.

846—IRRITABLE BLADDER—Please tell me what to do for my stallion that is troubled with his water; is ten years old. In going 12 or 13 miles he will urinate perhaps 8 or 10 times just a small quantity at a time. Seems to strain and try to do more. Been fed damaged hay the first of the winter. He seems to feel well and playful. Will it injure his breeding this season? Would it be best not to breed him? Can you advise some medicine to be given him in water to help him? The reason I would prefer to have medicine to be given in water is that it would be easier to give for he is particular.

REPLY.—No doubt the irritable condition was developed through feeding damaged hay as such cases are, as a

This Coupon Is Good for Prof. Beery's Introductory Course in Horsemanship FREE!

CUT OUT AND MAIL TODAY
PROF. JESSE BEERY, Dept. 13, Pleasant Hill, Ohio
Please send, free of cost, to the address below, Prof. Beery's Introductory Course in Horsemanship
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Postoffice.....State.....
R. F. D.....



Bad Habits Cured
By Beery System

Refusing to lead.
Running away when halter or bridle is removed.
Getting fast in the stall.
Pawing in the stable.
Pawing while hitched.
Crowding in the stall.
Fighting halter or bridle.
Tender bitted.
Pulling on one rein.
Lugging on the bit.
Lunging and plunging.
Refusing to stand.
Refusing to back.
Shying. Balking.
Afraid of automobiles.
Afraid of robes.
Afraid of clothes on line.
Afraid of cars.
Afraid of sound of a gun.
Afraid of band playing.
Afraid of steam engine.
Afraid of the touch of shafts or harness.
Running away.
Kicking.
Biting. Striking.
Hard to shoe.
Bad to groom.
Breaking straps
Refusing to hold back while going down hill.
Scaring at hogs or dogs along the road.
Tail switchers.
Lolling the tongue.
Jumping fences
Bad to hitch to buggy or wagon.

To all men owning horses, who answer this advertisement immediately, I will positively send my introductory course in Horse Training and Colt Breaking ABSOLUTELY FREE.

World's Greatest System of Horsemanship

Twenty-five thousand FARMERS and horse-owners have taken my regular course and found that *it does the work.* Even if you have only *one horse,* it will pay you to master my wonderful system. The Beery Course is the result of a lifetime's work as a tamer and trainer of horses. As one of my students has said, "The horse has never been foaled that Prof. Beery cannot handle." My record proves it.

Master Any Horse

The Beery Course gives you the priceless secrets of a lifetime—enables you to master any horse—to tell the disposition of any horse at sight—to add many dollars to the value of every horse you handle—and my students are all good traders.


BEFORE TRAINING

My Graduates Are Doing Wonders

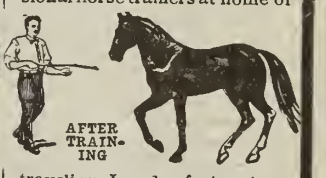
A. L. Dickinson, of Friendship, N. Y., says: "I am working a pair of horses that cleaned out several men. I got them for $110, gave them a few lessons, and have been offered $400 for the pair." Fred Bowden, R. R. No. 2, Keokuk, Iowa writes: "It's worth many times its cost." I have many similar letters from graduates all over the world.

Break a Colt in Double-Quick Time!

You can do it by my simple, practical, humane system. There is a lot of money in colt training.

Make $1,200 to $3,000 a Year

Many of my graduates are making big money as professional horse trainers at home or traveling. I made a fortune traveling and giving exhibitions. You have the same opportunity.


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and get the Introductory Course in Horse Training FREE. This special offer may never be repeated. Act now. Tell me about your horse.

PROF. JESSE BEERY
Dept. 13, Pleasant Hill, Ohio

Cuts of All Kinds
Made from Photographs

If you have a good photograph of your stallion, jack or any other animal, or of your house, barn or yourself, we can make you a cut from it, any size you want. **$2 pays for such a cut 3x3½ inches,** or smaller, if photo is clear. Larger cuts in proportion.

Ready Made Cuts at Lower Prices

We keep on hands the best line of stallion and jack cuts to be found in the country—a new line true to life, made from original photographs. Send for sample sheet and subscribers' prices.
N. B.—We do not do any printing. We simply furnish the cuts.

GRAHAM PUBLISHING CO.
225 WEST TWELFTH STREET, KANSAS CITY, MO.

SCIENTIFIC BREEDER WANTED

Want an experienced man who is a graduate of the Scientific Breeding School. Write at once.
C. B. JENSEN, Oldham, S. D.

rule, dependent upon some such cause. Give the horse one-half ounce of sanmetto in his feed or drinking water three times a day. Should he not improve in a week's time increase to doses of one ounce thrice daily. Do not exercise him rapidly or to a point of heating him up. If he improves he may be bred if necessary.

847—WHO CAN USE CAPSULES?—Can the average breeder successfully use capsules? I am a new subscriber and have a valuable stallion and have a number of mares which are not producing colts. I am anxious to increase the per cent of foals in my business.

REPLY.—The average breeder should have no difficulty in using the capsule system if he will follow the instructions carefully. We will answer any and all questions on capsule breeding. You should give this method a thorough trial. Hundreds of our readers have made great success with the capsule breeding by following the instructions given in this paper. The new method which is being introduced with the Natural Temperance Semen Extractor is very simple. That instrument is being sold on a guarantee that the purchaser can get the semen during a ten day's trial.

848—SEPTICAEMIA—I had a good jennet colt nine months old and last Friday morning I noticed her jaws lock; her throat was swollen as large again as it ought to be. It would not eat or drink. I examined it the best I could and found bloody water running out of its mouth like slobbers. It suffered a great deal and breathed hard and at noon it died. There wasn't anything the matter with it the day before as far as I could see; it sucked and ate heartily. The evening after it died I dragged it off and cut the flesh off of the jaws; the flesh was all loose and slipped off the right jaw bone and its teeth were all loose; could pull them out. The front teeth on that side to the middle in front were loose, and back past the teeth the flesh had yellow bloody water all through it. The bone was purple with black spots over it the black spots were softer than the rest of the bone; that bone was all softer than the other jaw bone. The right side was swollen worse than the other. The left jaw was all right. There was not any pus about it.—Missouri Subscriber.

REPLY.—We suspect your colt died of an acute case of septicaemia or blood poisoning, perhaps induced by some abrasion or wound on the inside of the mouth. It is doubtful if anything could have been done for the case even if detected early, as cases of this character are usually fatal.

PERCHERONS FOLLOW BELGIANS

IN THE AMERICAN BREEDER STALLION SHOW.

Entries and photographs for the Belgian Stallion Show, which closes March 28, are coming in rapidly. These will be published in the American Breeder of April 5. The Percheron Stallion Show will close soon after, and the photographs, with measurements, will be published.

Every Subscriber Owning a Good Belgian or Percheron Stallion Should Be Represented.

Read Full Directions Below and Help Create Interest in Better Horses by Using One or Both of the Entry Blanks.

Competition in this contest is limited to mature animals—that is, stallions four years old or over. Each one, as its photo and description are received, will be given an entry number, which will be published with the picture and measurements. No names will be given out until the awards are made. Then all of the entry numbers will be published, along with the names of the stallions, and owners who entered them. Each photograph should give a straight side view of the stallion's body, but may show his head turned slightly towards the camera if the owner desires. Only a few measurements are required. The blank below shows which ones. These measurements and a good, clear photograph will show pretty accurately, to an experienced man, what the stallion is as an individual. Measurements should be taken with a tape line drawn tight enough to press tight to the skin, but not enough to press into the flesh. We reserve the right to have a committee remeasure any animal and publish the result of its findings. Photographs can be any size, but those on which the stallion's body measures, in length, three to six inches are usually best. It is most important that they be clear and that the stallion stands straight and naturally when photographed.

Make all entries in one of the blanks below; clip it out and mail to the American Breeder.

Belgian Stallion Entry Blank—Entries Close March 28.

American Breeder Stallion Show—Kansas City, Mo.

Enter my stallion, as follows:

Stallion's Name.....Record No.....

Height (measuring from a point level with the top of the withers straight to the ground)..... inches. Heart Girth (around body just back of forelegs).....inches.

Bone (around foreleg, smallest place between knee and ankle).....

Owner's Name..... County.....

Postoffice ..... State.....

Percheron Stallion Entry Blank—Entries Close April 14

American Breeder Stallion Show—Kansas City, Mo.

Enter my stallion, as follows:

Stallion's Name.....Record No.....

Height (measuring from a point level with the top of the withers straight to the ground)..... inches. Heart Girth (around body just back of forelegs).....inches.

Bone (around foreleg, smallest place between knee and ankle).....

Owner's Name..... County.....

Postoffice ..... State.....

ADVERTISING BRIEFS

A. M. Perkins, Campbell, Mo., has a Percheron stallion and a Standard-bred stallion, (grandson of Dan Patch), advertised for sale in this issue.

Tyson Bros., McAllaster, Kas., have 25 boars and gilts for sale from $12.50 up to $20 each, or they will sell the whole bunch for $375.00. Read their ad.

Peter Hopley & Son, Atlantic or Lewis, Iowa, have for sale at this particular time a grand lot of mature Shire, Percheron and Belgian stallions. Imported horses weigh from 1,800 to 2,300 pounds. They have also a few American-bred horses, two and three years old, that weigh from 1,700 to 2,000 pounds. The price on these horses range from $400 to $1,200, and the horses are for sale at the stables only. Peter Hopley & Son give a 60 per cent breeding guarantee on the stallions they sell. Please mention the American Breeder when addressing them at either of the towns given in their advertisement. Their big farm lies nearly between the two.

A. M. Castle & Son, Joy, Ill., are making perhaps the only offering of high class Hackney horses advertised in our columns. There is an opportunity here for any one having a good imported Hackney stallion he wants to change. This firm is also one of Illinois' leading breeders of Duroc Jersey hogs and have stock in this line for sale at all times.

C. E. Brooks, 1724 State street, Marshall, Mich., is one of the extremely few medical or medical appliance advertising whose business this paper will accept. We have reason to believe that the Brooks Rupture Appliance has genuine merits and that the methods of its manufacturer are honorable and businesslike, and we will be glad to have the American Breeder mentioned by all who answer the advertisement appearing in this issue.

Taylor & Jones, Williamsville, Ill., leading dealers and importers of Percheron, Shire and Belgian horses, request any of our readers who are interested to send for their catalog, mentioning the American Breeder.

Professor Jesse Beery, Dept. 13, Pleasant Hill, Ohio, especially asks that every reader of the American Breeder cut out and mail to him the coupon which appears in his advertisement, and that all mention the American Breeder in writing to him about his world's famous course in horsemanship. Do not fail to look up the advertisement in this paper.

The Leather Products Company, 135 Acoma street, Denver, Colo., is putting out a new high grade halter that is giving the greatest of satisfaction to the thousands of people who have already bought it. This firm's advertisement appears regularly in the American Breeder, and we ask to be mentioned by all our readers who answer the ad.

Wolf Bros., Albion, Nebr., request that our readers note their new advertisement and the photograph of their prize winning two year olds which appear in their ad. Always mention the American Breeder when writing this firm.

The Corona Mfg. Company, 5405 Corona Block, Kenton, Ohio, puts out a remedy under the name of "Corona Wool Fat," which has been highly recommended to us by practical horse men. The fair, open proposition on which this firm sends out its remedy on a 20 day trial, is such that there is absolutely no risk to any of our readers. In answering the advertisement which appears on the back cover of this issue we will be glad to have the American Breeder mentioned in connection with any inquiry.

Mr. John G. Truman, Mgr., Trumans' Pioneer Stud Farm, writes: "We are in receipt today of cablegram from father advising us that he shipped us on the SS. Minnewaska from London on the 12th inst. our regular February importation, which consists of one of the most select lots of Shire stallions rising three and four years old that he has ever shipped us. Will furnish you a more detailed account of the shipment on their arrival here. We wish to report the sale of the world renowned Shire mare, Woodperry Locket to George M. McCray, Fithian, Illinois. It will be remembered that Woodperry Locket was purchased by us at 500 gs. at the Peterborough (England), show in July last. She is a very massive mare, has tremendous scale; standing on the best of feet and joints and has the distinction of winning no less than seven first prizes at the leading English shows last year. She has also been a winner previous years not only at the Provincial shows, but at the great London Shire Horse Show. It is unnecessary for us to state that it took a very long price to induce us to part with this mare, but as is well known, Mr. McCray has purchased some of the very best mares that have been imported to this country by us as his winnings at the state fairs and

UNEEDA HERD UNEXCELLED DUROCS.

25 choice boars and gilts; richly bred; rich red; good bone and length; weight 100 to 140 pounds. Price $12.50 to $20; $375 for the bunch. These are bargain prices. Write us at once.
TYSON BROS. **McAllaster, Kas.**

International shows fully demonstrate."

D. Augustin & Sons, Carlock, Ill., write: "We have had some very good sales since the International, both in stallions and mares. One of our most recent sales was the yearling stallion, Roland D. He was first prize in the American bred class and second in the open class at the Illinois state fair in 1913, in spite of strong competition. The buyer was E. D. Kohli, Pandora, Ohio, who has bought this colt to head his stud of pure bred mares. Mr. Kohli is an experienced breeder and shipper of draft horses, and has often been employed as judge at leading fairs in the East. Mr. Kohli visited a number of the leading breeding and importing barns before he bought this colt and came the second time before he was satisfied he could do no better elsewhere. Roland D. was sired by Roland, which has often been heard from in the show ring, especially on his get. We still have a nice selection of young stallions sired by Roland and other noted horses, and also offer a few mares of all ages, those coming three and over being safe in foal and broke to work. We invite all in the market for choice American bred stock to visit us. We have one of the leading breeding establishments in America which we have clearly demonstrated with our show records at the leading expositions.

H. Lefebure & Sons, of Fairfax, Ia., importers and breeders of Belgian draft horses, write under date of March 11 as follows: "We are pleased to inform your readers that business continues good in the sale of stallions and mares. We are averaging a little better than one sale per day. We are this day shipping a 1900-lb. coming three Percheron stallion to F. R. Mason of Grundy Center, Ia., and a chestnut sorrel 1900-lb. Belgian coming three years old to J. Krehbiel of Mound Ridge, Kans., who is a reader of the American Breeder. Last week we sold a ton Belgian to C. A. Lemert of Teegarden, Ind. We still have about 50 choice stallions on hand and another importation of Belgian stallions at sea that will be here by time this notice reaches your readers. A fact which will surprise you and which should not be the case, is that our very best stallions are remaining here on account of price. We have quite a number of great large and strong fellows that are very richly bred and weighing from 2200 to 2400 pounds. They were prize winners in Belgium and are the best obtainable. Among them is Javelot, a strawberry roan, coming 4 years old, weight 2210 pounds. He was the third prize 2 year old of the largest show of Belgium and fifth at same show when a 3 year old. In his district he won first in 1912 and 1913. We have a sorrel and several dark bays that are equally as good. The bays weigh from 2300 to 2400 pounds. Men wanting Belgians are never disappointed at our barns. The selection from which buyers may choose is never allowed to run low. This March importation will be followed by another in April. We have no salesmen on the road. The agricultural papers and our 125-page catalogue is selling the horses."

H. L. Brekke, Lindsay, No. Dak., ha some Dakota range horses and mare for sale. The mares are all in foal.

W. A. DeMerritt, Plainfield, Ill writes: "Am doing a big busines Just closed a deal on my last bull. Hav three young Clydesdale stallions left two are big, heavy bone ones, will ma ture into ton horses; absolutely soun and breeders." Mr. DeMerritt's ad ap pears regularly in these columns.

Raise chickens and thereby reduc the cost of living, and have a lot o fun doing it, is the advice of Robe Joos in his book, "Success With Hens just published by Forbes & Co., Ch cago ($1.00). This is a complete guid to poultry raising that thoroughly co ers the subject by an expert. It clear, practical and up-to-date. Noth ing is given but the best methods an only those which have been proved b the experience of successful poultr keepers. The small and large poultry man, the beginner and the experience will find this book indispensable. will reduce losses and increase profit

F. P. Friedline, Caney, Kans., is ad vertising one of his stallions for sale $700, as he needs only one. Read hi ad.

L. G. Strong, Montpelier, Idaho, advertising a 320-acre farm for sal at $15 per acre. Plenty of free rang and timber.

Dr. L. R. Chapin, Canton, Ill., is of fering for sale two full blood Perch eron stallions. He will send any on interested a description and photo graph of these stallions.

John Vought, Hampton, Iowa, ha two Percheron stallions for sale chea or will trade one of them for anothe stallion as good.

Peter Young, of Asse manufacturer of

Be an Auctioneer

Travel over the country and make big money. No other profession can be learned so quickly, that will pay as big wages. Write today for big, free catalogue of Home Study Course, as well as the Actual Practice School.
Next Term Opens April 6.
MISSOURI AUCTION SCHOOL,
Largest in the World.
W. B. Carpenter, President.
14th & Grand Ave., Kansas City, Mo.

ALFALFA
AS A MONEY MAKER

Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Building, Kansas City, Mo.

Stock Farm for Sale; one of the best in Washington county, Kansas; 314 acres; half grass; 30 acres alfalfa; balance farm land nearly all tillable; all fenced and cross fenced; never failing supply of both well and spring water; good six-room house; barn 60x62 and basement; located one and one-half miles from Greenleaf, Missouri Pacific division point. Also three standard bred registered stallions for sale; extra a choice. Address, **J. R. Pruden, Washington, Kan.,** Owner.

320 ACRE FARM

For sale or trade. Will trade for good young jacks; some registered Percheron stallions and mares. Located five miles from good town; two railroads; mail route and phone line. For further information, address, **A. Altman, Almena, Kansas.**

320 Acre Ranch

For sale. Plenty free range and timber. Price $15 per acre.
G. STRONG, Montpelier, Idaho.

Bridle, advertised in these columns, announces that he will reduce the price of this bridle to $3.50 for a short while. Any one in need of a bridle would do well to take advantage of this offer.

O. H. Pollock, Sec'y, Delaware County Percheron Breeders' Association, Delaware, Ohio, asks that any of our readers who are in the market for Percherons, write him for circular and list of breeder.

Amasa Roberts, Bentonsport, Iowa, is offering six Poland China fall boar pigs for sale at $20 each if sold before April 15th. His ad is in this issue.

Nick Bishop, Bisbee, No. Dak., has a French draft stallion and a young jack advertised for sale in this issue. The price on the stallion is $900 and on the jack, $325.

F. A. Winter, Republic, Mo., is advertising a coming three year old jack for sale in this issue. Read the ad.

Kirk Davis of Langsville, Ohio, has a five year old registered Percheron stallion for sale cheap.

G. F. Gilman, Harristown, Ill., is offering a prize winner Morgan stallion for sale.

W. H. Skibinski of Richview, Ill., makes a specialty of breeding big registered jacks. He also has American bred Percheron stallions and some extra good improved farms for sale. Write him for prices and terms.

Box 412, Traer, Iowa, is advertising two mares for sale, both in foal to imported Percheron stallion. Write for full information.

J. W. Barber, Skidmore, Mo., is advertising one two year old Percheron stallion, one yearling Percheron stallion, one mammoth jack and four jennets for sale cheap.

M. C. Gelvin, Toulon, Ill., wants to sell or trade his Clydesdale stallion for a good jack or Percheron stud colt.

W. A. Stuart, Portales, New Mex., box 161, would like to get a jack to stand on halves this season with privilege of buying. Read his ad.

A. K. Chandler, of Kellerton, Iowa, is advertising his brown trotting bred stallion for sale. Write him for particulars.

Canton, Ill., has his Percheron stallion, Superb 62477, for sale, and he will price him to sell.

Dr. W. M. Wegmann, Bladen, Nebr., is offering for sale a standard bred stallion and a two year old trotting gelding. Write for further information.

H. A. Schwatken of Hammond, Kans., has six jacks and 12 jennets advertised in this issue for sale or trade for land in the rain belt. Look up the ad.

W. F. Schade, Jackson, Mo., has four good jacks and wants to sell three of them. He is pricing these to sell. If interested don't fail to write him.

S. S. Russell & Son of Neponset, Ill., have two International prize winning Percheron stallions for sale. Read their ad, and if interested, write them for full information.

Chas. A. Galt, Mound City, Kans., has a registered jack for sale at $450. This jack is coming three years old.

Wm. Grothe, Flint Hill, Mo., wants to sell four mammoth jacks before spring. These jacks range in age from one to six years.

Trumans' Pioneer Stud Farm, Bushnell, Ill., writes that among their recent sales are the following: To I. H. Laverty, Warren County, Iowa, an imported Percheron stallion. To A. W. Foust, Montgomery County, Iowa, an imported Shire stallion. To Lott D. Champion, Olmstead County, Minnesota, an imported Percheron stallion. To B. F. Allender, Page County, Iowa, an imported Shire stallion. (This is the second stallion we have sold him.) To Daniel Bowland, Miami County, Indiana, an imported Belgian stallion, gold medal winner 1912 International. To Boles & Hoult, Edgar County, Illinois, a Shire stallion. To Purpus & Selters, Adams County, Illinois, an imported Percheron stallion. To A. E. Isaacson & Company, Montgomery County, Iowa, the imported Shire stallion, Carlton Royal Grey, winner of first premiums at the Iowa and Illinois State Fairs and International. To J. W. Griffin, Cass County, Indiana, an imported Percheron and an imported Belgian stallion. To Tryhon Bros., Montgomery County, Iowa, an imported German Coach stallion. To William Eddington, McDonough County, Illinois, an imported Shire stallion to head his stud of pure bred Shire mares. To A. Roetzel, LaSalle County, Illinois, an imported Suffolk stallion. To S. Z. Williamson & Son, Boone County, Nebraska, an imported Shire stallion to head their pure bred stud. To S. F. Huston, Hancock County, Illinois, an imported Percheron stallion. To Messrs. Sydenstricker & Stratton, Greenbrier County, W. Va., two imported Shire stallions. To Joseph Cudahy, Innisfail Farm, Libertyville, Illinois, a pair of imported Percheron mares. To our old customer, H. Osterhoudt, Boone County, Iowa, an imported Shire stallion. To C. J. Selover, Lincoln County, Wisconsin, a roan Belgian stallion. To C. L. Hardman, Marion County, Iowa, an imported Shire and an imported Percheron stallion, both noted prize winners at the shows last fall. The demand for strictly high class stallions continues good. Our last importation are now in condition and is now offered for sale. Shall be pleased to forward our catalogue to anyone interested in strictly high class draft horses. who mentions the American Breeder."

When using any kind of liniment the first thing to be considered is "Is it safe?" Absorbine surely makes good as it is perfectly safe and harmless and is composed of the best ingredients I can buy. A pamphlet giving detailed information about Absorbine will be sent to anyone upon request. If the case requires special directions or there are some points which have not been made perfectly clear in the pamphlet, the manufacturer is always glad to take the matter up and suggest line of treatment for each individual case.

Crandall & Danforth, Randolph or Northfield, Minn., have 75 Percherons for sale, thoroughly acclimated and of good colors.

C. E. Baldwin, Ada, Kans., is pricing his imported Percheron stallion at $700 as he wants to quit the business. This is a Brilliant bred Percheron, six years old.

George S. Perkins, Peoria, Ill., Rte. 4, has a Belgian filly advertised for sale in this issue. This filly took second prize at the International in 1913.

C. B. Jensen, Oldham, So. Dak., is advertising for a scientific breeder—one who is a graduate of the Graham Scientific Breeding School. Any one in the market for a position should write Mr. Jensen at once.

W. R. Hankins, Ravenna, Nebr., has home raised Percheron and Belgian stallions for sale; good colors and good size.

Scott & Abney, Virden, Ill., have 16 jacks from one to eight years old, with lots of bone and quality advertised for sale. Write them for prices if interested.

J. C. Womble, Wildorado, Texas, has an imported Percheron stallion for sale, or would trade for another Percheron as good.

S. L. Payton, Bedford, Iowa, has six head of Percheron stallions, two to four years old, for sale from $400 to $800.

A. B. Lee, Mitchellville, Iowa, has two ton Percheron stallions advertised for sale in this issue at the right price.

G. H. Blum, Cedar Falls, Iowa, is offering his registered Percheron stallion, Champion 70919, for sale at $600.

C. W. Fansler, Prairie View, Kans., has two big jacks for sale at $800. Mr. Fansler will give money back if the jacks are not all right in every way.

Harry E. Ross, Centerville, Pa., is advertising his Percheron mare, Maggie 68064, and her 18 months' old stud colt for sale in this issue. Look up the ad.

W. H. Thomas, Mountain View, Wyo., has four head of Wyoming raised jacks for sale. These jacks are fully acclimated; pasture broke and broke to serve at halter.

Billings Pony Farm, Athensville, Ill., want to sell or exchange a registered Shetland stallion for another equally as good.

Uz Clippard, Oak Ridge, Mo., has two young jacks to trade for Percheron stallion, registered Aberdeen Angus cattle or registered Jerseys. Look up the ad in this issue.

J. H. Wintermute, Blockton, Iowa, is advertising his two-year-old Percheron stallion, Coco Cola 86944, for sale, and would like to hear from any one in the market.

F. A. Wainscott, Callao, Mo., is offering all his jack stock for sale as he lost his horse and is going to quit the business. Look up his advertisement in this issue.

J. F. True, Jr., Perry, Kans., has two Percheron stallions and one jack for sale. He wants to sell either of the stallions and will use the other.

Dr. H. A. Alcorn, Adair, Iowa, is in the market for a big black jack and will exchange a registered Percheron stallion coming four years old.

E. E. Laughlin, Foster, Mo., (Post-office, Rich Hill, Mo.), offers 18 months' time on the two jacks he is advertising in this issue. The jacks are young and sired by 1,250-pound jack and priced at $400 each. Mr. Loughlin is vice-president of the bank of Foster, but will always be found at his farm.

J. P. and M. H. Malone, Chase, Kas., have some imported Percheron stal-

THE KANSAS CITY VETERINARY COLLEGE

Gives a Thorough and Complete Course. Conforms to the Requirements of the Bureau of Animal Industry.

New Buildings, Commodious Hospital Equipment, Experienced Instructors, Large Attendance, One Acre and a Half of Floor Space.

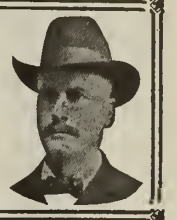
Many Opportunities as Practitioners, Sanitary Officers, Teachers, U. S. Inspectors, Investigators and Veterinarians. Catalogue and other information sent on request.

Dr. S. Stewart, Secretary,

1336A East Fifteenth Street - - - Kansas City, Missouri

R. L. HARRIMAN, Bunceton, Mo.

The Fine Horse and Jack Auctioneer of the West



I sell more horses and jacks than all others. Terms always right: work always up to the highest standard.

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14th & Grand Ave., Kansas City, Mo.
Specialist in Auction Sales of
LIVE STOCK AND LAND.

GOOD SHORTHORNS.

Pratical cattle for both beef and milk. Just the kind the farms of the country need, and with breeding and conformation to make show cattle if you want them. I show my breeding stock successfully, but no stock is ever crowded enough to hurt it.
Pleased to show stock, quote prices and answer inquiries at all times.
C. H. White, Burlington, Kas.

ABERDEEN ANGUS BULL

For sale. A registered yearling, out of sire and dam that weighed 1600 and 1700 pounds at three and a half years of age.
FRANK M. POLLARD, Dexter, Minn.

Poland China Pigs

For sale. Six choice big type Poland China fall boar pigs, $20 each if taken before April 15th.
AMASA ROBERTS, Bentonsport, Iowa.

STATEMENT OF OWNERSHIP, MANAGEMENT, CIRCULATING, ETC., AMERICAN BREEDER.

Published twice a month.

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National Bank of Commerce, Garnett, Kas.
(Signature of editor, publisher, business manager or owner)
(Signed) FRANK B. GRAHAM.
Sworn to and subscribed before me this 16th day of March, 1914.
(Seal) GEO. H. HOUGH, Notary Public.
My commission expires September, 1917.



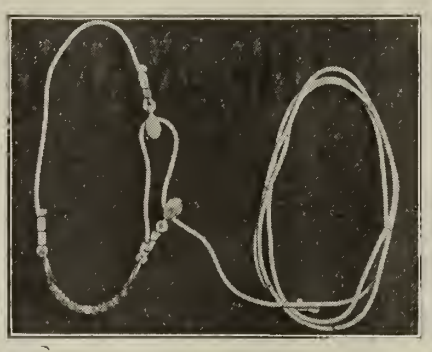
HUMANE STALLION COLLARS the only kind suitable for working on a stallion. We make them to fit any size and kind of trace. In ordering describe style of hames you use. If single trace hames be sure to state width of trace and length of hame tug from hame to buckle. If you use chain or Moeller hook traces, so state.

Sizes 15 to 25 inches, $7.50 each; larger than 25 inches, 50 cents extra.

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No. 10—Heavy, high-test rawhide center, from butt to tip; rubber lined; double waterproof covered, 6½ feet long. Price..$1.00

No. 11—Special Stock Yards Horseman's Whip, full length, 10½ feet; lash 5 feet; 12 nickel ferrules. Price $1.00



"CONQUEROR" STALLION BRIDLE

Guaranteed to Hold Any Stallion or Jack.

This bridle is made of especially selected material. Can be adjusted to fit any size head and for either hard or tender mouths. Just the thing for breaking runaways or kickers. Price, each.....$2.50

CAUTION:—Never tie an animal with this bridle. If he got to pulling he could split his head.

Every One of the Above Articles Sold On a "Money Back" Guarantee. Cash Must Accompany Your Order. We Prepay Shipping Charges.

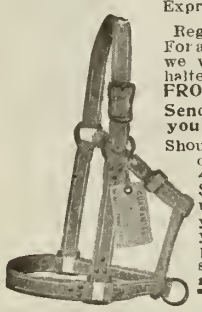
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We ship on approval, PREPAY EXPRESS and allow you to be the judge of our "NEVER BREAK" halter. Made of Elk Leather.

Used by Buffalo Bill, Sells Floto Shows, Denver Fire Department, American and Adams Express Companies.



Regular dealer's price $3.00 For advertising purposes we we will send you a sample halter for $1.50 DIRECT FROM FACTORY ONLY.

Send no money Unless you care to do so.

Should cash accompany order we will send you 4 HALTERS FOR $5.00 If you decide upon examination that you don't want them your deposit will be promptly refunded and shipment returned at our expense.

Don't Wait. Write today.

The Leather Products Co.

1350 Acoma St., - - Denver, Colo.

Automatic Stallion Bridle

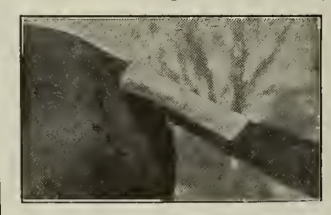


Manufactured Exlusively by Peter Young, Assumption, Ill.

Controls the most unruly stallion without injury and will not hurt the kindest and most docile horse. Fits the largest draft stallion or the smallest roadster without adjustment. Made of the best leather. Shipment will be made on receipt of order, as I have them in stock at all times.

Order one, and if not satisfactory, return it and your money will be cheerfully refunded. Price, $3.50, with order. Can be sent by mail.

TAIL HOLDER, (Patented)



Most satisfactory and sanitary way of holding the tail when breeding. Tail holders are a success. We sold them over 24 states and out of 85 sold only one was returned, and that was returned for us to fix the ball and sockets.

It is put on and taken off in an instant. Send for one, and if not as represented, return it and get your money back. A new feature about it this year makes it so it has more adjustment for large and small tails. Price 50 cents, stamps, postoffice order or check.

E. E. HALL, KINCAID, KANSAS, Anderson County

"Ore City, Texas, Oct. 27, 1913.

Dear Sir: The Holder is the best I ever saw. Will want more next season. Helps more than I thought it could. Yours truly, Per C. M. S., Ore City Livery Co."

"Danube, Minn., Nov. 21, 1913.

Dear Sir: I would like to say that the Tail Holder you sent me last spring is the best I have ever used. I would not part with it for any price if I could not get another. I remain, Yours truly, Chas. W. Brandt."

NORTHWESTERN LIVE STOCK INSURANCE CO.

PAID UP CAPITAL $100,000. ASSETS $175,000

ONE HUNDRED THOUSAND DOLLARS ON DEPOSIT WITH THE IOWA INSURANCE DEPARTMENT

GOOD PRODUCING AGENTS WANTED

ADDRESS HOME OFFICE, DES MOINES, IOWA

lions for sale that buyers cannot afford to overlook. One of them is a grandson of Besique; all are Brilliant-bred and one of them gets a fee of $30 for breeding pure mares. Messrs. Malone have colts to show from every horse, and the horses are thoroughly acclimated and in good fix for the coming season's service—advantages not easy to secure in buying imported stallions. These horses are all blacks, 1,700 to 2,100 pounds, 5 to 7 years old, and part of them medal winners in France. The right kind of a jack can be used in a trade for one of these stallions. Read the ad and mention the American Breeder in writing.

Planting The Colt Crop.

(Continued from page 3)

fact that a stallion or a jack occasionally gets a colt is not evidence that he is a regular breeder.

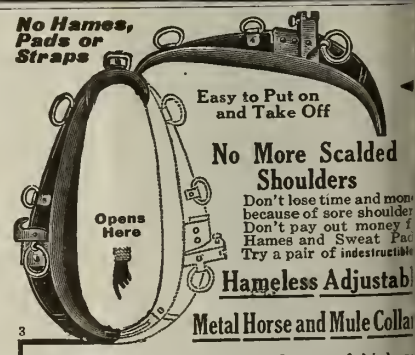
Mares should be returned on the 21st day, after being bred, and once a week for three weeks after that period. Some mares are not regular in their heat period and that is the object of the additional three trials. Some breeders have the 18th day for the retrial. Those mares which are in heat on the 18th day will usually be in heat on the 21st day. It is much better to breed at the latter end of the heat period than at the first part of it. There are many mare owners who retry their mares on the 9th day, which is a mistake. There are some mares which seem to be in heat a great length of time. The average period for a healthy mare is from four to nine days, if she remains longer than that she is either diseased, or should be bred by artificial methods. Those mares which appear to be in heat all of the time are usually not very sure

Those who own mares should take an interest in this work and have their mares on hand at the exact time for retrials. There is also a necessity for them to take better care of the mares. Mares which are used at severe work are not very profitable brood mares. The proper way to take the mare to the stallion or jack is to lead it slowly, both going and coming. After the service is made the mare should be walked off quietly and go home slowly. Those mares which are rushed to the stallion and rushed home are not nearly as sure to get in foal as those which are taken home quietly and allowed to rest the remainder of the day. No change should be made in the feed or work at the breeding time. Some owners who wish to be extremely good to their mares will take them home and turn them in a clover pasture, which is a change for the digestive organs and in many cases the mares are required to be bred again as the result of this change. All changes of feed and work should be made gradually with breeding animals. After the mares have been bred they should not be allowed to run with geldings or horse mules. Most of these male animals will do more or less riding which is a detriment to foal production. Quite frequently this is found to be the cause of mares not producing satisfactorily.

Owners of scrub stallions which would not make good geldings if castrated, are doing much injury to the advancement of live stock. The offspring of such sires have very little value, even at maturity. The individual who purchases a sire of this kind for little money and expects to increase his business through his great vocabulary is an enemy of improvement and modern methods. He is very anxious to make a natural service on a diseased mare because he wishes to establish a reputation for his particular horse as a sure foal getter. If he can get one of these diseased mares with foal he can proclaim that fact. as he barters his stallion to the public. He does not realize that he is scattering the disease throughout that vicinity. The greatest fear these scavengers have is that the capsule system will be inaugurated successfully in his territory. They know that if that system is thoroughly established that they will not have any business. They have grasped the idea that if ten mares can be bred at one service the service fee can be made so low in price that the best sire in the country can be stood for scrub prices. It is this thought which stimulates the scrub owners to fight the capsule system. They lay awake at night figuring some way to get a report started in a community that the capsule system is a failure. If these unscrupulous men would confine their statements to the truth they would be a great advertisement for capsule breeding and advanced methods in horse breeding generally.

Fortunately the intelligent mare owners have taken the measure of these individuals and understand the limit of their statements. On many occasions reports have been circulated that a particular breeder had made a failure. After a thorough investigation these reports have been found absolutely false. The difficulty is there are so many of these scrub owners that it is difficult to establish the capsule system in some communities the first season. These scrub owners uually bring about their own defeat. After they have talked so much concerning this proposition the intelligent mare owner will ask himself this question: Why is he everlastingly fighting modern methods? Some of these individuals have very good friends, who are good men but have not realized just why this fight is being made. Those who have used the capsule system one or more seasons are now getting signed statements from their mare owners who have tried it. They are sending them out broadcast; this gives the mare owners in that community an opportunity to ask other breeders what experience they have had. Scrub opposition does not last long in the average community. The inferior scrubs are rapidly passing out of existence. Better sires are taking their places. More owners are learning that colts produced by these inferior sires lose them money.

Every mare owner in the vicinity of a good sire should use his influence for better stock. Influential farmers will have much weight with their neighbors. The more men interested in better stock the more wealth is to



No More Scalded Shoulders

Don't lose time and mone because of sore shoulder Don't pay out money f Hames and Sweat Pac Try a pair of indestructible

Hameless Adjustabl Metal Horse and Mule Collar

Endorsed by veterinaries and men of high a thority. A. F. DeLaune, St. Thomas Plantation, A bemarle, La., writes: "Send me forty steel collars

Think what that means to the horse owne Think of the time saved—money saved and suffe ing saved the mules. Think of the extra work yc could do with a collar that insures against gal and sore shoulders. Be humane, progressive ar up-to-date and save money by using

Indestructible Collar

and you'll be free from sore shoulder troubles. The met won't permit the sweat to scald and produce a sor Being adjustable they fit the neck and bring the dra to correct point. Durable—last a lifetime. The ide work horse and mule collar. Be sure and test out th great Twentieth Century invention—100,000 in succes ful use. Good Agents Wanted. Manufactured by

Johnston-Slocum Co., 933 State St., Caro, Michig

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The regular subscription price to the American Breeder is $1.00 per year, but in the belief that we can save ourselves in the future, two-thirds of the work of sending out notices and of revising our subscription lists, we are trying the experiment for a short time of giving the paper

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This offer was first made for the holidays only, but has shown such good results we have decided to keep it open awhile longer. If all who have not already renewed will do so promptly, and use their best efforts in securing subscriptions, this low rate will mean an important saving in money to them now, and a big saving in work to us later.

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The American Breeder prints more reliable information for horse breeders than has ever been obtainable from any other source. Every issue (and there are two issues every month) is worth several times the subscription price.

N. B. We are making no reduction whatever from our regular price on one year subscriptions. **The rate is for three-year subscriptions only.** Every subscription stops when the time is out. Until this offer is withdrawn $1.00 will pay for three years' renewal or three years' new subscription.

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will clean them off permanently, and you work the horse same time. **Does not blister** or remove the hair. $2.00 per bottle, delivered. Will tell you more if you write. **Book 4 K free. ABSORBINE, JR.,** the antiseptic liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments. Enlarged Glands, Goitres, Cysts. Allays pain quickly. Price $1.00 and $2.00 de at druggists or delivered. Manufactured only by YOUNG, P. D. F., 388 Temple St., Springfield, Mass.

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Remedy for oon Blindness



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ISIO" will convince any horse owner that it is the t remedy for defects of the eye, irrespective of length of time the animal has been afflicted. matter how many doctors have tried and failed. "VISIO" under our money back GUARANTEE. 2.00 per bottle, postpaid on receipt of price.

10 Remedy Ass'n. 2475 Calumet Ave., Chicago, Ill.

produced in that section. The best ck is the most profitable and there no better method of breeding up n to make a campaign for the use better sires. A word of encourage- nt to the man who has spent his ney for a good stallion or jack for lic service means an advancement that community. The man who is a good sire now can be en- raged to get a better one to use the fillies, which are now being duced. This condition can only be fected by closer union between the re owners of a community and the ners of good sires.

EMEDY FOR BLOODY WART.

o the American Breeder:—In an- r to question 712 in the February issue, in regard to blood wart rem- , will say take castor oil, the best can get, and apply once a day ely. This remedy is almost a sure e.—H. F. Dugan, Woods County, a.

SIX COLTS BEFORE SHE IS EIGHT.

To the American Breeder:—While the paper does not come in my name, I furnish the money so the Breeder belongs to the family. We think we get more than our money's worth and will continue to keep it in the family.

A good way to keep the boy on the farm is to buy a pure bred mare, which I did in Lynda, whose number is 56858. I send photo of her and fifth colt. Her fifth colt was born May 10, 1913, the seventh birthday



Good Example of the Profit in a Properly Handled Draft Mare.

of Lynda. All her colts were fillies, but one, which died at three days. She is due to foal April 19, 1914, so she will have her sixth colt before she is eight years old. Lynda weighs 1800 pounds, is as lively as a 1000 pound horse, will work anywhere and makes a fancy carriage horse.

You have made mention of some colts, but they haven't beat me yet. I just sold a grandson of Lynda to Mr. Kleven of South Dakota. This colt was 19 months 17 days old and weighed 1670 pounds; was a good actor and a good looker. We got $600 cash, and while this colt was worth the money, we think we did all right for a small breeder.—L. C. Hepperley, Madison County, Neb.

COLOR OF SOILS.

To the American Breeder: The color of soils is governed largely by the amount and kind of iron compounds and the percentages of organic matter which they contain. Iron may give soils a red, blue, yellow or gray color, depending largely upon texture, aeration and moisture content. Organic matter when present in quantities tends to make soils either black or brown in color. The combination of colors formed by the iron compounds and organic matter give rise to a great many intermediate tints.

As a rule the dark color of soils is closely associated with the presence of organic matter, while a light color indicates its absence. Dark colored soils are usually quite productive, while light colored ones are generally unproductive. Soils uneven in color and somewhat mottled indicate lack of aeration and drainage, and are not in good physical condition.—James D. Marshall, Colorado Agricultural College.

TEACHING THE CARE AND BUILDING OF COUNTRY ROADS.

A Kansas governor has stated that Kansas is wasting four million dollars a year in road and bridge work. Much of the money is lost through the hiring of inefficient road overseers. The Kansas Agricultural College is offering to those interested in road building, and especially to those responsible for road-building, correspondence courses in highway construction. The college believes that public men—the trustees, clerks and treasurers who hire the overseers—should know enough of road construction to enable them to choose competent workers. The courses, which are prepared in the office of W. S. Gearhart, state engineer, are supplied to the individual at slight cost.

One of the courses is a general study of road-building, which treats of the construction of all sorts of roads, of road drainage, culverts, bridges, grading, and other essentials. More detailed study is made in the other correspondence courses of concrete work, pavements, bridge building, surveying, and necessary work in drawing and mathematics. Information in regard to the courses may be obtained from J. C. Werner, director of all correspondence courses at the agricultural college.

FOR MORE PERMANENT SILOS.

Now that Kansas farmers in general have come to appreciate the value of permanent silos, the Kansas Agricultural College will give instruction in silo-building chiefly by correspondence courses instead of personal visits by experts. To encourage the building of permanent silos in the state it has been the policy of the agricultural college to send out men to supervise concrete silo construction where no local contractor could be secured to do the work. In this way concrete silos have been built under college supervision in nearly every part of the state.

Visits for consultation of not to exceed a day at one place still will be made by the college specialists as far as possible, the farmer requesting such visit paying all expenses. Specifications for reinforcing, examinations of concrete material, plans, and any other desired information in regard to silo construction will be furnished by correspondence free of charge. The college now has a list of a large number of competent concrete builders in the state, which will be furnished to anyone desiring it.

ILLINOIS QUARANTINES AGAINST TUBERCULOSIS.

Governor Dunne of Illinois has issued a proclamation, quarantining Illinois against nineteen states in the matter of tuberculosis dairy cows.

The nineteen states against which the governor's proclamation will be aimed are: New York, Virginia, Kentucky, Ohio, Michigan, Minnesota, Missouri, Oklahoma, South Dakota, Pennsylvania, West Virginia, Tennessee, Indiana, Wisconsin, Iowa, Arkansas, North Dakota, Montana.

The proclamation will apply only to dairy cattle, and will provide that all such cattle shipped into the state from any of the other nineteen states shall bear a certificate of health with respect to bovine tuberculosis.

Costs You Nothing
If It Fails



Make Sure of a Cure Before You Pay

If you own a horse or a cow mail me the coupon below, or even a post card with your name and address, and I will send you a big can of ***Corona Wool Fat*** on ***20 days' trial,*** with full directions how to use it. I want you to try it for 20 days after you get it. Then if satisfied with results send me 50c. If not satisfied or if it does not do what I claim, you don't have to pay me one penny for it.

It Heals and Cures

Hard and Contracted Feet, Split Hoofs, Corns, Scratches, Grease Heel, Thrush, Quarter Crack, Barb Wire Cuts, Sore Teats of Cows, Ulcers, Old Sores, etc. You will be surprised at the results.

Corona Wool Fat

—the Wonderful Healing Compound—is unlike anything you ever tried or used. Don't confuse it with salves or ointments containing grease and blister compounds. It is the only remedy that will penetrate a horse's hoof which is 60% to 70% water. Grease and water don't mix—that is why ***Corona Wool Fat*** succeeds where all others fail. It is not a grease, but the fatty secretions extracted from the skin and wool of the sheep. It is readily absorbed, penetrates to the inflamed inner tissues, ***heals and cures, does not burn or blister, leaves no scars, causes no pain,*** and will never get rancid or decompose.



Heals Wire Cuts Without Leaving a Scar

Used by 100,000 Satisfied Stockmen, Farmers and Horse Owners

It heals without leaving a scar and will grow an entirely new hoof. Morris & Co., the great Chicago packers write: "We have been using ***Corona Wool Fat*** on our heavy draft horses working on city pavements for four years. We are highly pleased with its results and would not be without it."



Cures Galled and Sore Shoulder

Send No Money—Just the Coupon Today

I take all the risk—furnish you with a big can of ***Corona Wool Fat*** to try on any case you have. If it does what I claim you would not hesitate to pay me a five dollar bill for it. If it does not, it won't cost you one cent. I leave it all to you. Send coupon today and I'll send the trial can of ***Corona Wool Fat*** by return mail—postpaid—as offered.

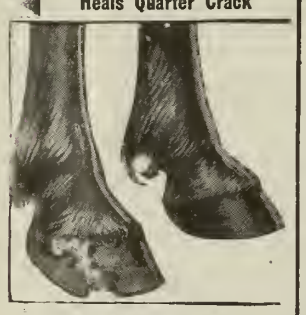
C. G. PHILLIPS, Mgr.

THE CORONA MFG. CO.

(5)

5405 ***Corona Block*** ***KENTON, OHIO***

Heals Quarter Crack

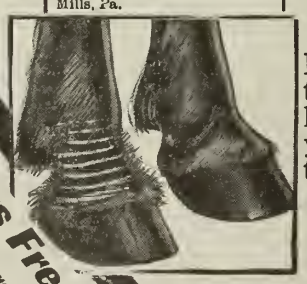


Before and After Using

Read the Proof

Corona Mfg. Co., Kenton, Ohio. Gentlemen—I received the can of Corona Wool Fat and tried it on a Barb Wire Cut. Your Corona Wool Fat is the right thing for wire cuts, and every Stock Man should have a big box of it on hand at all times. Yours truly, W. S. Dennis, Robinson, Kan.

Corona Mfg. Co., Kenton, Ohio. Dear Sirs—I have tested Corona Wool Fat thoroughly and find it to be all and even more than you claim for it. It is the best thing I have ever tried. Yours truly, Warren, E. Stover, R. F. D. No. 2, Spring Mills, Pa.



Cures Scratches

20 Days Free Trial COUPON

CORONA MFG. CO., 5405 Corona Blk., Kenton, Ohio

Gentlemen:—Please send me the trial can of your Corona Wool Fat. It is understood that I am to use this for 20 days in accordance with directions, and if I am satisfied with the results I will send you 50 cents to pay for it. If it does not do as you claim I will owe you nothing.

Name.....

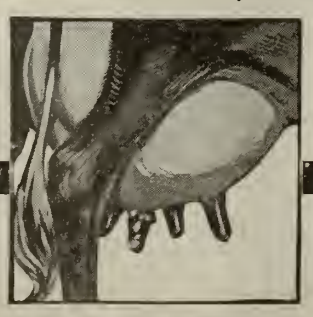
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State.....



Cures Collar Boils



Corona Cures Sore Teats of Cows



Before and After—Case of Grease Heel

6.05 Stack
MB

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A Farmers' Paper, Devoted to the Breeding and Care of Their Live Stock, and the Welfare of Their Families and Homes.

Published Twice a Month. Subscription Price, $1.00 Per Year, or $2.00 for Three Years, Payable in Advance.

Volume VII. *Kansas City, Missouri, April 5, 1914* *Number 6*



Read About The Special Features Of This Paper; Page 3

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THESE SPECIAL APPLIANCES FOR SALE DIRECT

and by This Company Only. No Agents; No Commission;

SOME CHEAP IMITATIONS OF APPLIANCES MANUFACTURED BY US ARE ON THE MARKET. THEY ARE DANGEROUS.

The New NATURAL TEMPERATURE Semen Extractor

(Patent applied for.)

This is the latest improvement in capsule breeding. It has a soft metallic point which is absolutely necessary for getting the semen out of the uterus. It will stand bending 1,000 times without breaking. The natural body temperature can be maintained. More failures have been made from not keeping the right temperature than from all other causes, when healthy animals were used. After the semen is taken from the mare the long point is easily and quickly detached. The part containing the semen is then placed in the mare. This insures the proper temperature. This new instrument will be sold on a ten-day trial on all orders received before April 15. If the purchaser cannot get the semen out of the mare with this instrument during a ten-day trial, he may return it in good condition and get back the purchase price. It is very simple in its construction, and will stand continuous boiling. Nothing complicated; full directions accompanies each order. Remittance must accompany the order. Price, $6.00.

Improved Carlson Semen Extractor

This instrument has been used successfully by thousands of breeders. **Price $6.00.**

Pointed Breeding Capsules

We have the only capsules made especially for horse breeding. Some capsules do not dissolve, leaving a foreign substance in the uterus, which will prevent conception. Other capsules are too flimsy to use for this purpose. You cannot make any mistake by buying capsules from us as we only have one kind. We have them boxed with 100 in each box. The box is tight so they will be clean. These capsules are new, properly baked, and all bacteria killed before they are mailed. Always keep the lid on the box when not in use. **Price (per box of 100), $1.50.**

Microscopes

A standard microscope. Can be used in testing the semen of stallions or jacks. Equipped with lense which magnifies 500 times. Boxed in fine case. Every breeder should have a microscope to test and prove the sureness of his sire. Any boy can learn to test the semen. Full directions accompany each order. **Price, each, $35.00.**

Curved Metal Impregnator

Nickel plated, 22 inches long, used for getting the semen out of the vagina only. **Price, $4.00.**

Thermometer

A new and improved thermometer, specially tested and used for keeping water at the right temperature. **Price, $1.00.**

For Testing Acid Mares

Blue Litmus paper will turn slightly red if the mare is acid. Place a sheet of this paper between the fingers and contact it with the fluid in the mouth of the womb, 25 sheets in a package. **Price, per package, 25c.**

For Treating Barren Mares

We have a rubber hose made especially for treating barren mares. It is pure gum rubber made by hand; will stand boiling. It is the proper length and size, with a funnel to fit. **Price, $1.50.**

Speculum

Fourteen inches long. Very necessary in making examinations. Made of the best copper and specially polished so that the light is reflected into the mare. Any part of the vagina or cervix can be seen with this instrument. It is easily inserted. The best speculum on the market. Every stallion or jack owner should have this speculum. **Price, $3.00.**

Veterinary Thermometers

A standard clinical thermometer used by veterinarians. A metal case which insures it against breaking, with chain attached which may be pinned to the vest pocket and carried with safety. Extra length, tested and should last a lifetime. **Price, $1.25.**

Bulb Impregnator

The bulb impregnator is equipped with a rubber hose just like the ordinary impregnator which has been sold for years. It is not guaranteed to stand boiling. **Price, $3.00.**

Breeding Hobbles

Guaranteed to hold and fit any mare. Made of the strongest material. Every breeder should have a set of these hobbles. Some mares are dangerous to breed without them. **Price, $4.00.**

Breeders' Bags

Three sizes, small, medium and large. Stallions weighing 1,200 to 1,600 pounds usually require a medium size. These bags are guaranteed not to tear from any cause, before March 1, 1915. If they do tear before that time, return the top part with our stamp on it and 50 cents in cash and we will send you a new bag. **Price each, $1.50.**

Directions for Ordering

Send money orders or draft, as exchange is charged on personal checks. Always name Express Office as well as Post Office address, in order to insure prompt delivery.

We Pay Postage or Expressage on All Orders

THE KANSAS CITY IMPREGNATOR COMPANY

TWELFTH and CENTRAL STS., KANSAS CITY, MISSOURI

THE AMERICAN BREEDER

WITH WHICH IS COMBINED THE STALLION AND JACK NEWS

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OLUME 7 KANSAS CITY, APRIL 5, 1914. NUMBER 6.

Treating the Non-Breeding Mares

Every breeder who owns a stallion jack of any kind, and who makes ıy pretension as a breeder, should ıve a vessel holding several gallons water, with a lid on it, and a faucet ith a cut-off valve so that the water n be boiled in this container and lowed to cool. This is needed every me a mare is opened up, as well as r other purposes. All of the water ed in treating barren mares should sterilized by boiling, otherwise the eatment might cause a disorder orse than the original ailment.

The additional appliances for giving ares treatment are: A hose made pure gum rubber about three-eights an inch in diameter and five feet ng, a funnel to fit the hose, and a rge cup holding one gallon of water. ne water used in flushing out mares ould be about 110 degrees as it will ol a little in passing through the rub-r tube. No water should ever be ed in a mare at less than 100 de-rees.

Before the uterus is flushed out, the se, funnel and gallon cup should be ıt in the container and boiled in or-r to destroy all infection. This ould be done before each treatment as not to carry any infection from ne mare to the other. The hands ould be washed; finger nails trim-ed.

A gallon of fluid should be pre-ared at the proper temperature for ch case. A helper should be in-ructed to pour the fluid in the fun-el, holding the fluid well up so as to ve the desired pressure. After the se is filled with fluid the end of the se should be bent sharply so as to ake a cut-off and not allow air to be jected into the womb. Insert one nger into the uterus over the front id of the hose and let the fluid flow to the uterus. Fill it full, but in case ne uterus should be unduly large, and ne gallon is not enough to fill it, sip-on the fluid out before the hose is npty by lowering the outside end the hose, keeping the finger over ne point of the hose to keep the mem-anes from clogging it. In the event at only the vagina is affected it lone should be irrigated, but this is ot often found.

Only veterinarians should flush the terus of a mare that within three ays has aborted, as there is danger getting too much air in the uterus t that particular time. Breeders hould not attempt to treat these ares sooner than three days after n abortion.

When the iodine treatment is used ll the fluid should be siphoned out, ecause enough of it might be ab-orbed into the system to be injurious. there is difficulty in getting it out might be well to use a gallon of he saline solution to wash it out. Ordinarily it will flow out of the terus by inserting one finger and ushing down a little so as to form n outlet. It is not so important to ave all the saline or the soda solu-ion siphoned out; neither of these vill do serious damage except in a arge organ that holds an unusual mount of fluid. The operator must se some judgment as to what treat-nent will be best for each individual ase.

Ordinarily, in a bad case, the iodine treatment should be given once a week for two or three weeks. Where the iodine treatment is given one should not expect the mare to fertilize for several weeks afterward, as the treatment serves to remove the diseased covering in the uterus, after which a reasonable length of time will be necessary to form healthy tissues.

The iodine treatment is prepared as follows: A teaspoonful of tincture of iodine to a gallon of sterilized water, or strong enough to give it a bright red or port wine appearance. The saline solution is made by putting in a teaspoon level full of good salt for each pint of sterilized water and boiling together. The soda treatment is made by putting a teaspoonful of baking soda in a quart of sterilized water. (Soda purchased at the grocery store is suitable.)

Last year we prepared an extended article on this subject and to our surprise hundreds of questions were asked on subjects which had been thoroughly discussed in just as plain language as we could prepare. This year we are going to take a different plan. We want our readers to send descriptions of the cases they have to treat. We want this description to be as thorough as possible concerning the generative organs. We believe we can put information in the most practical form by advising for these representative cases. The following recently received questions and our answers, will show our plan:

"I have a nine year old mare which seems to be healthy in every respect. There is no discharge and the mucous membranes are normal. The cervix is slightly closed. We have made a rectal examination and both ovaries seem to be the same size—about the size of a hulled walnut. There are no cysts on them. We have tested the uterus for pus and can find none. This mare raised a colt two years ago and has been bred repeatedly to stallions and jacks without results. What can we do for her?—Iowa Subscriber."

Test this mare with blue litmus paper. Place a sheet of this paper between two fingers and let it come in contact with the fluid in the mouth of the uterus. If the blue litmus paper turns slightly red, the secretions are acid, which are destructive to spermatozoa. Use the soda treatment on this mare and breed her in an hour. If she comes back three weeks later in heat, use the saline solution on her at about 115 degrees. Repeat this treatment once a week for three weeks, then breed her again.

"We have a five year old mare which has a whitish, sticky substance in the vagina. She was bred last year to several stallions, but did not settle. She seems to be in good health every other way. She raised a colt as a three year old.—Indiana Subscriber."

Use the saline solution, the first time at 110 degrees and in two days use it at 115 degrees. Repeat at about this same temperature every two days for a week or ten days, and then breed her.

"A bay mare 12 years of age has pus in the uterus and has considerable discharge; the hairs on the tail are stuck together. The discharge seems to be of a yellowish color. She has been this way for about a year and a half. Please advise treatment.—Nebraska Subscriber."

Use the iodine treatment on this mare and three weeks later use the saline solution once a week for three weeks, and then breed her, provided the discharge has all disappeared and she seems to be normal.

"A mare which we have been trying to get in foal for three years fails to settle. When she is served the entire discharge is thrown out on the ground. The mouth of the womb seems to be larger than other mares. She does not seem to be diseased in any way.—Illinois Subscriber."

Wait until this mare goes out of heat two days then breed her with a capsule. If she comes in heat in three weeks take a speculum and look at the cervix. If it is closed up, do not disturb it, but if it seems to be as open as it was when she was bred, you will probably find it profitable to use the saline solution at about 115 degrees for one or two treatments. If this fails after one or two heat periods, take your speculum and place it in the mare so that the cervix will

Show This to Prospective Subscribers

Here is a condition that favors every stallion or jack owner who is making the way for a better business in his territory by getting his customers to read the American Breeder. The proposition we made in our last issue—a nine months' subscription rate of 25 cents—is bringing a more immediate response than we anticipated. Before making this introductory offer we consulted with many breeders, and without exception they said that such a rate would enable them to do business with practically every owner of really good mares who came to their barns, for they would absolutely recommend and guarantee the American Breeder to this kind. Apparently they began getting subscribers at once, because many subscriptions were received from them within a week after the announcement appeared in the paper. Many of these men have written that it is exactly what they want. They get the paper until the first of June, and finish out the nine months after September 1. This gives the mare owner (who is apt to be very busy during the summer months anyhow) all the fall, winter and early spring to continue his reading along the lines to which we introduce him between now and June 1. Every issue he reads means better care of his mares and colts, better success with them, and more money from them. The breeder who gets him started in such a course is bound to profit—and every man in his district who owns good mares (or wants to own good mares) is in just this position, and just the man to thank him for an opportunity to get the American Breeder for a quarter during the best reading months of the year.

How's This For 1.4 Cents?

Now see what (in this issue alone) every reader gets for his money: (1) The opening article on treating non-breeding mares—standard information, upon which no college or veterinary school can improve for practicality and simplicity. (2) The second lesson on the fundamentals of breeding, the most exact and easily understood series yet printed under this head. (3) The fifth lesson on hog breeding, the most absolutely practical (and at the same time scientifically correct) set of directions for hog raising ever given out in so condensed and convenient form. (4) Our semi-monthly market review from an experienced, conservative and close student of market conditions. (5) A home department that is more than a mere recipe exchange. (6) Columns of good live stock miscellany, and, (7) Most important of all, the biggest and livest Question and Answer Department published by any paper—a department of timely practical experience and accurate information. The third lesson on diagnosing live stock diseases—a series which many rank next to the Questions and Answers—is omitted from this issue for lack of space.

Instead of being an eighteenth part of what you can give your customer for 25 cents it reads like $25 worth of reading matter. In fact, there is nowhere else that a man can take $25 and get the necessary, practical information along these lines, that he can get from this issue of the American Breeder.

Belgian Stallion Show Postponed To May 5.

Nor are these the only strong attractions for the prospective new subscribers at this time. Lack of space has made it necessary to postpone publishing cuts of the entries in the Belgian stallion show until May 5. About four pages of space will be required for the cuts, measurements, etc. Nothing so instructive in the matter of draft horse conformation has ever before appeared in this or any paper—and nothing interests like actual photographs. At closing time we had entries from 15 states, from Pennsylvania to California, and the man who shows the best horse in a collection like this has more to be proud of than has many a winner in national shows of the animals themselves.

This feature alone can be made to secure thousands of subscriptions. Even our small showing of Suffolk stallions (a breed just beginning to be known) attracted remarkable attention, boys and women writing about it, as well as men.

Our Percheron Stallion Show, which doubtless will be our greatest, will follow soon after the Belgian show.

Now we want every subscriber to show this statement, or tell about it to his friends and neighbors who ought to take the paper, so they can see what one or two regular issues contain. How can they refuse a trial subscription at a quarter. We want everybody to have a chance at this offer but we cannot promise any extension of time.

be enclosed in one end of it, then take a clean rod and tie some cotton on the end of it and slightly paint the inside of the cervix with iodine. Let her go for one or two heat periods and then breed her with a capsule.

AMERICAN BREEDERS SHOULD FEED BETTER.

To the American Breeder: Please find enclosed, $11.00, for first quarter advertising bill, in your paper. My sales have doubled, or nearly trebled over any previous year.

We aim to always keep a good selection at all times, and it keeps me stepping around pretty lively to get and keep horses enough that are in market condition. If the American breeders would only keep the stock they have for sale in as good condition as the breeders do in the foreign countries, the importers would be spending more money here instead of taking countless thousands to the old country.—A. W. Green, Geauga County, Ohio.

WHERE HAY PUTS ON FAT.

To the American Breeder: I have lived in Colorado and Wyoming for thirty-six years, and can say that this is the best country for raising range horses and cattle I have seen in late years, as the grazing scope of country is large, and well watered. In summer cattle and horses go up in the foothills and get the best of grasses, and come out in the fall fat. We raise plenty of both wild and tame hay to winter them and I have fed steers in winter for beef and shipped to Omaha and got as much as some of the corn-feds brought. There are ranches for sale here, good hay ranches that can be bought for from fifteen to thirty dollars per acre, owing to the location.

I have a ranch down out of the snow and I can turn out of my fields on to the public range, and if I want to run my cattle on the forest reserve I can do so by paying twenty-five cents per head. Most everybody turns their horses out on the range (that is the breeding bunches) and there are some that have pasture enough to keep most of them inside. I have two ranches adjoining each other. I would sell one, or both, as I am getting too old to run them.—C. H. Dunham, Lincoln County, Wyoming.

TEN TIMES WHAT PAPER COSTS.

To the American Breeder: I can't get along without the paper. It is getting so much better every year, and more interesting. Whether breeding with capsules or natural breeding, every stallion owner can learn ten times what the paper costs him.—Egbert Comstock, Montcalm County, Mich.

CAN'T BE EQUALED FINDING BUYERS.

To the American Breeder: Please withdraw my ad. I am getting so much mail I can't keep it out of my way. I have no more stock to sell at present until the 1st of July. The "Breeder" is O. K., and can't be equaled to find buyers, and gives a large quantity of good reading that is of so much interest to the one that is trying to improve and grow the very best live stock.—Isaac C. Lohman, Clinton County, Mo.

DRAFT HORSES ON NEBRASKA RANGE.

To the American Breeder: There is no free grazing land in northwest Nebraska any more, but plenty of land can be leased from individuals, at from $75 to $150 per annum per section, in the sand hills. Draft horses do fine on the range and get out and rustle nearly as well as the smaller horses. My horses have rustled all winter and are in fair shape. They usually require some feed.—James E. Carson, Garden County, Neb.

The Fundamentals of Breeding

LESSON II---MENDEL'S LAWS

By H. W. VAUGHAN

Iowa Agricultural College

The time is here when every breeder should understand Mendel's law of heredity. This law was discovered in 1865 by Gregor Mendel, an Austrian monk; but attracted no attention at the time, and for 35 years remained unknown. In 1900 the paper written by Mendel was discovered by several distinguished scientists, and since 1900 numerous investigations have shown that practically all results in breeding may be explained on the basis of the principle advanced by Mendel.

Mendel and later investigators discovered that every plant and animal is made up of many independent or unit characters. It was also found that when two individuals are mated, the offspring will exhibit some of the unit characters of one parent and some of the unit characters of the other parent. Only by actual trial can it be determined which parent will have most to do with determining what the offspring will be.

Another very important fact which has been discovered is that both parents contribute a complete set of unit characters to the offspring, so that the offspring really possesses two complete sets of characters, but only 50 per cent of these characters dominate in the offspring, the other 50 per cent remaining latent or dormant. We also know that when an animal is used for breeding purposes it has just as good a chance of transmitting its latent characters as it has of transmitting its dominant characters.

For example, suppose we mate a hornless bull or cow with a horned cow or bull. All calves from such matings exhibit the polled character, but all of these calves also possess the horned character in latent form, and some of their offspring will have horns. Hence we call the first generation of calves impure polls, because they have the horned character in latent form and are likely to produce horned calves. In fact, if these calves are interbred—that is, brothers and sisters are mated—the calves of the second generation will be of three classes: (1) 25 per cent will be pure horned like their grandsire; (2) 50 per cent will be impure polls like their parents, and (3) 25 per cent will be pure polled like their grandams.

If class 1 is interbred, they produce only pure horned cattle like themselves. Class 3 will produce only pure polls like themselves, but if class 2 is interbred, the offspring will again be of all three classes in the proportion 25:50:25. It is impossible to distinguish between class 2 and class 3 from their appearance, because both are hornless. Hence on the basis of appearance there will be 25 per cent horned cattle and 75 per cent polled. But if the polled animals are tested by using them as breeders the 50 per cent of impure polls may be discovered. Right here the reader should observe that the appearance or individuality of an animal is by no means a safe guide to its breeding value.

The accompanying diagram will make clear the operation of Mendel's law. This diagram will be easily understood if given a little study and provided the reader is familiar with the preceding article on animal breeding in the March 20th issue. For simplicity only the nuclei of the cells are shown, and each of the nuclei is given only two chromosomes. The chromosomes carrying the horned character are represented white and those carrying the polled character are represented black in the diagram. Horns are placed wherever they occur.

The horned bull (A) is mated with the polled cow (B). A cell of each parent is shown containing two chromosomes. The chromosomes are represented black and white so they may be followed through the diagram. Below A are shown two spermatozoa. Below B are two ova. The spermatozoa and ova contain one chromosome each, because the germ cells always contain half the number of chromosomes common to the other cells of the animal. C and D are two calves, the result of the first mating. Each inherits both the polled character and the horned character as shown by the possession of a black chromosome and a white one, nevertheless they are both polled cattle because the hornless character is dominant and the horned character is recessive.

The spermatozoa of C and the ova of D are shown below them. Half of the spermatozoa contain only the horned character (white chromosome), and

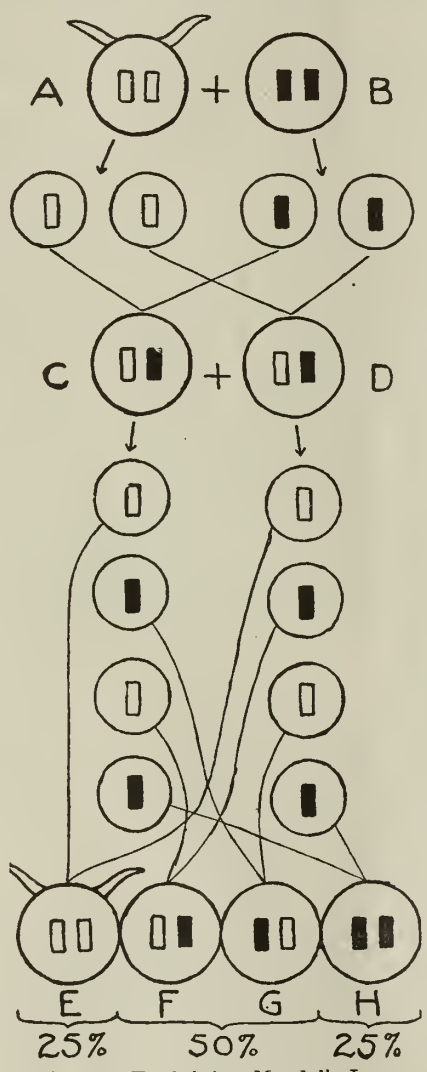


Diagram Explaining Mendel's Law.

half contain only the polled character (black chromosome). The same is true of the ova.

Now there are four equal possibilities when C and D are mated. 1. A white chromosome from C may meet a white one from D. 2. A white may meet a black. 3. A black may meet a white. 4. A black may meet a black. The results of these four equal chances are represented by E, F, G and H. F and G are identical. This gives 25 per cent horned (E), 50 per cent impure polled (F and G), and 25 per cent polled (H). Thus we see how Mendel's law operates and how its results are produced. This law covers practically all cases of inheritance in animals and plants.

Mendel's law proves that what goes into an animal through its ancestry will come out again through its descendants. It also proves that an animal does not exhibit all the characters it inherits from its ancestors and transmits to its descendants. Indeed, on the basis of Mendel's law, we see that an animal exhibits only half of its inherited characters. This explains why some very good horses have come from a mediocre parentage. We can also understand why some horses of splendid individuality have failed to produce good offsprings. The reader should also observe that brothers may be very much unlike each other. As an example note E and H in the diagram.

The horse breeder who understands Mendel's law will always insist on a combination of good individuality and good pedigree in the animals which make up his breeding stud. One is as important as the other in the breeding animal.

Long before Mendel discovered his famous principle, breeders of horses and other live stock recognized the importance of having not only good individuals to breed from, but also of having these individuals backed up by ancestries which include as many high-class animals as possible. Mendel's law teaches us no new methods of animal breeding, but it does do the important thing of explaining and making clear what the best breeders have always believed, namely, that good pedigree is just as important as good individuality in animal breeding. A knowledge of Mendel's law makes us strong in the conviction that this great principle is sound.

MORE THAN FOR 20 YEARS WITHOUT IT.

To the American Breeder: I will ask room in your paper to say, that I have been reading your paper four years, and have got more breeding knowledge out of its teachings than I have obtained elsewhere in the past twenty years. I cannot afford to do without it while I keep breeding stock. Success to editors and the American Breeder and all of its readers.—J. R. Nicholas, Coal County, Okla.

"ANSWER THROUGH THE AMERICAN BREEDER."

To the American Breeder: I saw a piece in the paper from A. D. Watson of Osage County, that said he could put a man in touch with one of the best valleys in Wyoming. If you will send me his address as I am thinkink of going west to try the horse business.—F. F. Mills, Woodson County, Kas.

Mr. Watson has been offered free space in these columns for printing the name and location of the valley referred to. In that way the largest possible number will get the benefit of any real information he has to give. —Editor.

To the American Breeder: I see by the March 5 number, American Breeder, page 31, inquiry of H. Kirchner of Wright County, Ia., as to free range for horses and cattle. We have miles and miles of free range here, and draft horses are good rustlers on the range.—B. L. Mack, Fremont County, Wyoming.

BELGIAN STALLION ON SMALL MARES.

To the American Breeder: I have been taking your paper now for one year and like it fine. I find it a good educational paper on stock of all kinds, and on horses especially. I don't see how I could get along without it, as I have a little bunch of horses and can get so much information out of the American Breeder on breeding. I have small mares and am breeding them up with a Belgian horse that weighs 2,000 pounds. I am interested in the Montana subscriber's letters on breeding to small mares. I find the best results from small mares is to breed to the Belgian horse.—R. M. Jordan, Pennington County, South Dakota.

Modern Horse Breeding

The breeder who serves all mares
t come, allowing the penis of the
llion to carry diseased germs from
e mare to the other, cannot expect
get the best results. By using cap-
es and selecting the cleanest and
althiest mare for the natural serv-
, the hands may be thoroughly
shed after breeding each mare so
not to carry any infection from
e mare to the other.

t is not necessary for a breeder to
sh his hands in capsule breeding
he only expects to get the same
ults with capsules that he would
inarily get with the natural serv-

The breeder who opens mares
h dirty hands cannot expect to get
good results as if his hands were
an.

Every mare should be examined be-
e she is bred. It is useless to waste
eral services on a mare more es-
ially when only the natural service
employed. During the busy season
ry natural service should count, or
breeder and the mare owner both
e money and time. In every com-
nity there are a lot of mares that
olutely cannot be fertilized by the
ural service, but which can be made
ducers with capsules.

There are now about 7,000 men in
United States using capsules, as
ocated by the American Breeder
l it is likely that before this breed-
season is over the number will
ch 10,000. There are still a few men
o do not believe that capsule breed-
is a success. A successful capsule
eder can be found in nearly every
nty in the United States today. In
ne counties a majority of the mares
bred with capsules. Capsule
eding is growing in favor among
re owners; a lot of communities
asking for capsules.

The breeder who owns a good stal-
n or jack, and who does not study
s proposition is standing in his
n light. The system may not be
y adopted in one year; it may take
ttle time in some communities, but
ne breeder will be careful and breed
ew good mares so that mare owners
ually know that it can be done,
re will be very little difficulty in
ng farther with it next year.

Always we have advocated proper
e along sanitary lines, and this
kept a lot of breeders from trying
system. Those who are clean with
ir work will have the best results.
all mares will get with foal by
ng bred with capsules, neither do
y all get with foal by being bred
h the natural service, but a mare
t will get with foal with the natural
vice can be settled with a capsule,
roperly done, and there are a lot of
es that can be settled with cap-
es that cannot be made producers
h the natural service. When the
en is deposited in the uterus of a
e this is all any stallion or jack
do, and in some cases more than
one with the natural service.

Successful capsule breeding has en-
raged more men in buying high
ss stallions or jacks the last year,
n all other causes combined. Not
ny breeders care to pay $2,000 or
e for a stallion or jack to stand by
ural service, but when a number of
es can successfully be bred from
h service of the stallion, great rev-
e can be expected.

Following our discussion as to cap-
breeding recently we invited state-
nts of actual experience and from
letters received have selected the
owing, showing about the average
results. We give each man's ad-
ss, so that any one who wishes can
and see him personally. The let-
were received on the dates shown:

March 26, 1914.—Capsule breeding
given better results than natural
vice. I bred a mare with capsules
year midway between heat per-
iods and today, March 26, she was returned with a ten day mare colt, as strong, healthy, and bright as a colt could be. This mare had large, open cervix and had been bred continously for three years with natural service without results. In all cases of malformed, torn, or scarred cervix the capsule is much ahead and has proven just as sure on others with the risk of break down from heavy stallions or irritation from rough servers all removed.—H. H. Burns, Argonia, Kansas.

March 28, 1914.—I have had very good success with the Carlson Extractor in the last year. I have settled several mares that could not be settled by the natural service, one of my own, a driving mare that had been bred several times to a road horse.—T. M. Williams, Charlotte, Iowa.

March 27, 1914.—There is no "if or and" about breeding with capsules or "little bottles," as they call them here. The colts are as good if not better, as you get colts out of mares that never bred before and they raise good ones. I can show capsule colts till one gets tired of seeing them.—M. P. Hodgden, Enid, Okla.

March 28, 1914.—My experience with capsule breeding commenced May 24, 1913. The year 1913 was too cold here for capsule breeding until about the middle of June. Preceding the date mentioned no capsule breeding had been attempted in this vicinity. People were afraid to try it. But I got a few good mares to breed and am hoping the owners will care for the mares at foaling time, so that they may be able to see for themselves that a capsule colt is just as good as one got by natural service. I am convinced that it is the proper way to breed.—E. N. Irish, Blandinsville, Illinois.

March 27, 1914.—I have used the capsule method and don't hesitate to say I think it is alright. The man who don't use it is mostly in his own light. The finest colt I ever saw was a capsule colt. All mares that I have bred by capsules have settled by one trial, except a few old ones which it never paid any man to breed. I will close by saying, success to the "Breeder."—J. B. Culpepper, New Florence, Mo.

March 27, 1914.—I know that mares can be successfully bred and raise colts the same as by direct breeding. The colts are as strong and as healthy as those bred direct. The stallion owner does not lose so much time, by breeding the shy breeders with the capsules. I think if all mares were bred with capsules and the stallion or jack used once a day the colts would show up better. —W. H. Hearting, Halstead, Kansas.

March 26, 1914.—Any one who says the capsule colts are not as good as the natural service, does not know anything about it. Send him down and I can show him better capsule colts, and more of them, than from any other way. I got a new customer last year, who had bred five mares for three years at different places. And after breeding the five mares for three years in succession, he got only one colt. Last spring he came to my place and I did a nice, clean job of capsuling them. Now he has one colt and is sure of three more, that will be four out of five, for sure, and I am quite sure the fifth one is in foal. For shy breeders, the capsule system, is the only way to breed. Any one doubting this can write Mr. Tom Boyles, Carrier, Oklahoma. He has five mares.—Barney Lott, Goltry, Oklahoma.

March 28, 1913.—I find capsule breeding to be merely a mechanical operation. Follow instructions and succeed. The best jack on the farm is a capsule colt. With me it has been possible to settle some mares that have never been in foal. When the rush comes the capsule will be the means of conserving the stallion or jack. But the most important is the protection the capsule affords against diseased mares.—A. Lee Ely, Monroe City, Mo.

March 27, 1914.—In the interest of the mare owner will say that colts by capsules or by impregnator are equally as large, strong, and vigorous as by natural service. And as to the shy breeding mare, the capsule is the most sure way to foal such mares. All stallioners are simply wasting time and money by breeding any other way. The time has come for the stallioner to stand his own horse and to dictate his own method without the sanction of the pessimist and breed the shysters as he wishes. Which will surely be by the capsule or not breed them at all. As long as breeding is followed there will be the ignorant, disgrunted fellow, who will always refuse to be convinced although it is more and better colts in his lot and more money in his purse. —Abraham Crawshaw, Carbondale, Ill.

March 28, 1914.—The capsule breeding system is alright. The colts are just as good and strong as from natural breeding.—H. A. Wehrmann, Monticello, Mo.

March 28, 1914.—I believe a mare can be successfully bred with the capsule system and be fertilized more easily, if she is a shy breeder, than by natural service. And the colts are just as good. The important thing in modern breeding is, "Be sanitary."—C. E. Baldwin, Ada, Kansas.

March 27, 1914.—As there is a lot of doubt about the capsule system, will tell some of my experiences. I have used them for three years with good results. Some seem to think the capsule colt is not as large and strong as the natural service colt. That is only because they have not had any experience and they don't want any. But in a few years the stallioner that don't use the capsule system will be a back number. Sure, the capsule system is here to stay. I got eight mares in foal with two horses one day, with one service each.—Wm. Hartman, Baring, Mo.

March 28, 1914.—I have used the capsule system, as taught by you, for the last two years and find it very successful. I have foaled mares with it that never would settle with the natural breeding. I bred one mare, that had been torn so bad in foaling that it was impossible for a horse or jack to serve her, and she settled the first heat and foaled a fine colt. I bred one mare with a capsule from the horse and in twenty-one days she was hot in heat and I bred her to the jack, but she had a colt from the horse. I am sure the colts are as good as they are by the natural way. —S. J. Holmes, Rocky Comfort, Mo.

March 28, 1914.—I have found capsule breeding to be a success. There is absolutely no difference between a capsule colt and a colt produced by natural service. It is possible to impregnate a shy breeding mare with a capsule, that cannot be settled by natural service. I live only twelve miles from Mr. I. W. Everson of Dunlap, Iowa, who is recognized as one of the very best breeders in the business and he has produced hundreds of capsule colts. My uncle, Mr. A. Mourer of Hankinson, North Dakota, is also a successful capsule breeder with both stallions and jacks. A Carroll county friend of mine, Mr. A. Dutter, gets better than seventy per cent of the mares he breeds in foal and has capsule colts all over Carroll county. —Louis A. Wilson, Logan, Iowa.

March 28, 1914.—I think capsule breeding is the only way to get some of the shy breeding mares in foal. I can see no differences in the colts, but some one is always knocking.—J. J. Buchta, Russellville, Mo.

March 28, 1914.—In regard to my experience with the capsule. I have used it two seasons and have had good success. One mare, eighteen years old and bred every season and never got

(Continued on page 12.)

Enter Your Percheron

IN THE AMERICAN BREEDER STALLION SHOW.

Entry Limit Extended to April 30.

Read Full Directions Below and Help Create Interest in Better Horses by Using One or Both of the Entry Blanks.

Competition in this contest is limited to mature animals—that is, stallions four years old or over. Each one, as its photo and description are received, will be given an entry number, which will be published with the picture and measurements. No names will be given out until the awards are made. Then all of the entry numbers will be published, along with the names of the stallions, and owners who entered them. Each photograph should give a straight side view of the stallion's body, but may show his head turned slightly towards the camera if the owner desires. Only a few measurements are required. The blank below shows which ones. These measurements and a good, clear photograph will show pretty accurately, to an experienced man, what the stallion is as an individual. Measurements should be taken with a tape line drawn tight enough to press tight to the skin, but not enough to press into the flesh. We reserve the right to have a committee remeasure any animal and publish the result of its findings. Photographs can be any size, but those on which the stallion's body measures, in length, three to six inches are usually best. It is most important that they be clear and that the stallion stands straight and naturally when photographed.

Make all entries in one of the blanks below; clip it out and mail to the American Breeder.

American Breeder Stallion Show—Kansas City, Mo.

Enter my stallion, as follows:

Stallion's Name.....Record No.....

Height (measuring from a point level with the top of the withers straight to the ground)..... inches. Heart Girth (around body just back of forelegs).....inches.

Bone (around foreleg, smallest place between knee and ankle).....

Owner's Name..... County.....

Postoffice ..... State.....

THE AMERICAN BREEDER

With which is combined THE STALLION AND JACK NEWS.

A Journal of Live Stock Improvement and Modern Breeding Practices.

FRANK B. GRAHAM and T. W. MORSE, Editors.

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If you miss your paper please notify us at once and all lost copies will be replaced.

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A COUNTERFEIT STALLION.

A South Dakota subscriber writes that a stallion was sold to a company of men in an adjoining county, which would not even serve a mare, and that the firm which disposed of the stallion had sold the notes and left the country. His son, being one of the company, is asking us what to do in the case. He also states that there are several firms in South Dakota selling inferior stallions for exhoribant prices.

Since the notes have been sold and passed into the hands of an innocent purchaser it is not likely that the payment on these notes can be stopped. It will perhaps be necessary to bring an action against the firm that sold the horse, by bringing suit in a county where the papers can be actually served on a member of this firm. It will cost a lot of time and money to get a judgment. Then the company that disposed of this horse may not be so situated that a judgment can be realized on.

We may not be of much service to those who have been skinned but every man interested in honest dealing can help to prevent others from being skinned.

Many horses sold under the company plan and methods are inferior horses. Even where the horse does have some value there are liable to be statements and guarantees made which the dealer does not intend to live up to. The shrewd dealers have everything prepared so that they can close the deal, cash the notes quickly and leave the country. Then those who have signed the notes can hold the sack at their leisure.

There is just one way that these crooked deals can be stopped and that is for every person or company buying a horse to write the following in the notes: "This note given subject to a guarantee of even date." This serves notice to the purchaser that a guarantee has been made; then the purchaser cannot put up the claim that he is an innocent purchaser because this notice on each note is evidence that the purchaser knew that a contract was a part of a consideration for which the notes were given.

If every reader of this paper will preserve this copy, mark this article, and present it where a company is being formed, a lot of innocent men can be protected. It should be the duty of every man interested in clean dealing to stop crooked methods of selling horses. If the dealer objects to making this notice on the notes let him take his horse and sell him elsewhere. So long as this notice is made on the notes the purchaser can expect the dealer to live up to his guarantee; that is why the notices are a necessity. If a dealer objects to having this notice on the note it might be evidence that the dealer does not expect to live up to his guarantee. If every breeder in the county will use the telephone he can get in connection with other breeders throughout the county and ask if there are any companies being formed.

Some of those selling horses on the company plan will put up the argument that this would put them out of business because they could not turn their money again. There are a lot of these men who ought to be out of business—they are leeches and the horse industry will be better off without them.

OBJECTS TO PREPARATION FOR CAPSULES.

A Washington subscriber states that he would be glad to use capsules but that it is too much bother to keep clean and make the necessary preparation for capsule breeding. This breeder perhaps has not realized that it is necessary to keep clean even with the natural service; neither has he taken into consideration the expense of maintaining several sires, such as feed, care, money invested, taxes and the risk of loss by death or accident.

Is it possible that he does not wish to improve the stock in his community? If all the money invested in several animals could be converted into one good one, would it not mean an improvement in live stock for his neighbors? It requires only a few minutes work to breed a number of mares after the preparation has been made. A few hours of actual work will produce all the necessary arrangements for capsule breeding.

Every breeder, regardless of the kind of stock he may have, should arrange to do some kind of artificial breeding. There are a good number of mares in every community that cannot be fertilized with the natural service. They may be opened up and bred and yet refuse to settle. The average mare with a closed cervix will usually close up nearly as quickly as the hand is removed. If they are opened up too much the cervix is lacerated and the attempt is often a failure. The best way is to quietly insert a capsule in the mare having a closed or a crooked womb, or one which has been lacerated and has much scar tissue. No breeder can expect to get the best results without being clean in his operations whether it be with natural service or artificial means.

NOTICE TO LIVE STOCK ADVERTISING AGENTS.

Hereafter no commissions will be paid on live stock advertising. Any arrangement to the contrary which we have previously made, is hereby canceled. We are issuing this notice for the reason that it is necessary in order to treat all of our friends alike. Two years ago we authorized a number of breeders to take advertising for the American Breeder and hold out a small commission for their trouble. Nine out of ten of these men have refused to accept any commissions, either on their own advertisements, or on those secured from neighbors, yet they have been more active in our behalf than some of the few who accepted the commissions we were glad to pay. The amount of money involved is too small to be of importance either way, but the loyalty of our friends who will accept no money at all justifies this recognition.

MAKING WORLDS FAIR CHAMPIONS.

On more than one occasion the awarding of worlds fair championships has been done in such a way as to be considered a joke. Not so many years ago, in a draft horse exhibit, arrangements had been made by those on the inside to have a particular judge place the winners. One firm (not "insiders") that had gone to a considerable expense for that particular exhibition investigated conditions and wired its foreman not to ship the horses, as the barns were in a very bad condition.

In another instance decisions that caused much comment were made concerning jacks. One of the men interested in this jack transaction was soon able to buy a farm. This also caused comment.

World's fair propositions are sometimes handled in a peculiar manner. There will be another world's fair next year. We are wondering what preparations are being made for the elimination of this crooked work. There are now several breed politicians busily engaged in forming these crooked connections. We could name several, if it was necessary. The breeders representing the different breeds of live stock will be largely responsible for these wrong methods of doing business if the plans of the crooks succeed, because each one has something to say about this fair management. Right now is the time to get busy and see that arrangements are made for clean competition. Every breeder should study the matter with relation to his own breed of live stock. The appointment of superintendents and of committees for the selection of judges should be carefully scrutinized. We should like to see at least one world's fair live stock show held exclusively on a competitive basis.

HORSE BREEDING UNPROFITABLE?

One of our new subscribers states that several of his mare owners have lost interest in breeding their mares; that the mares either fail to settle, abort colts or die at foaling time. He is asking for the best plan to revive these mare owners so that they will have better results and pay more attention to their mares in every way.

This breeder lives in a good section of the country, where horse breeding should be very profitable. Perhaps it never occurred to this man that his mare owners know very little about horse breeding. He never stopped to realize that these men were anxious to make money from their mares. He has never given the education of these men much thought.

No breeder can expect to have a successful breeding district without first educating his mare owners, but if he had wanted to educate them prior to the last few years, where and how could it have been done? No publication has ever given this subject much space. Much of the material which used to be prepared was valueless or worse. That is exactly the reason this publication was started—because there was a field for it and practically no competition.

The intelligent thing for this breeder to do is to take advantage of our cheap trial subscription proposition and have every mare owner in that district reading the American Breeder for a year. He will then have a different class of men to work with; they will be completely changed; they will see the necessity of doing these little things the lack of which has lost them so much money. In order to have the best results the breeder must work with his mare owners; they should get their information from the same place he got his; then they will work in harmony.

It will be very easy to get subscriptions from these mare owners. Have a copy of the American Breeder handy. Just say, "Here, Mr. Jones, I want you to take this paper; it only costs you a quarter, and if you are not satisfied with it at any time let me know and I will give you back your money." He may ask for a sample copy; simply show him your own paper and tell him he cannot have that one because you would not break your file for any reasonable amount of money. A little effort will get nearly every man that comes to the barn. During the breeding season is the time to get these subscriptions. Don't forget to ask every man for his subscription before he leaves the barn; they will nearly all take the American Breeder and be very thankful for the invitation. It is a good plan to have them pay their own money for it, as they usually read it better. If every breeder will spend just a little time soliciting these subscriptions he can have a large list in his community and have a better class of customers.

This is the greatest opportunity ever offered to breeders. Every breeder who overlooks this proposition will lose something. Right now is the time to begin and make a practice of asking every man that comes to the barn. It will soon become a fixed habit and no one will be skipped; no matter who he may be, just ask him for his subscription.

CROOKS RAPIDLY LOSING OUT.

Slowly but surely a great improvement is being brought about in the selling of pure bred draft horses. We are informed that several farm papers, among them Wallace's Farmer, published at Des Moines, Ia., has refused the advertising of several notorious and crooked draft horse firms. This paper, especially, is one of the cleanest in the field and should be commended for its stand.

Breeders must learn to uphold publications, or men who are willing to make financial sacrifices, in order that their friends and readers may not be skinned. This is the only way by which best results can be secured. Not only is a publication acting dishonorably to sell its space to such people, but in thus giving them recognition it actually assists in the many mean things that these crooks can do through their far-reaching affiliations. They never cease but keep continually on the trail of an honest man or pub- with the nerve to refuse their dvertising.

It is with pleasure that we make mention of the stand taken by Wallace's Farmer. A newspaper representative recently said that in his opinion pedigress from such firms as McMillan, Maasdam & Wheeler and Robert Burgess would be discriminated against more each year. We believe this statement is true. We know of numerous breeders who have disposed of all their stock having any connection with these firms. If breeders continue in this discrimination it is only a question of time until the breeding put out by such firms will be eliminated from the draft horse industry. Some attempts have been made to change the firm names of some of these firms. This is not likely to fool all of the breeders all of the time. Firms which have done an irregular business for years may find it very difficult to shift to an honorable basis through such a superficial change. Bad blood remains in a herd for a long time.

LISTS OF NAMES.

Again we wish to express our appreciation for the interest which prompt our readers to send us the names of friends and neighbors to whom they would like the American Breeder to go. We may not always send papers to the addresses receiv

. Often, at such times, a big force subscription clerks are busy with ts, containing, not five or ten names ch, but thousands of names, all arnged alphabetically by states, so at as fast as subscriptions are reived, the names can be readily ecked from the sample copy lists, d the lists in that way kept constantrevised. We can best keep track of iat we are doing by adding all new mes in their proper positions, to r regular lists, before we send samcopies to them. Following this n it is often months before samples to any of the addresses and the t way one of our friends can help to get the subscriptions of others l thereby broaden the influence of h his work and ours, is to show m copies of his paper; tell them at it is; refuse to let them take ies away, and explain that every ue contains information worth ny times the cost of a year's subiption, and that he saves every er and keeps his files complete. plain to them that we get our subiptions strictly on the merits of the er, that we have no free list, and t the paper stops when the time out. Then tell them the price (a cial rate if there is one in force) guarantee them that when the er starts they can get their money k if they decide it is not worth at they have paid. You have had paper a half dozen years, pers. Your personal assurance as to value is of more worth to them n their own opinions could posy be after seeing only one sample y. If they are the right kind of ple they will subscribe.

VHERE IS IT BEST TO BUY?

Ve sometimes hear the opinion exssed that it pays best to buy of small breeder. There often are es in which the small breeder, from k of room or the necessities of othbusiness, makes a very low price breeding animals in order to move m, and in such cases there is some ndation for the belief in the ecoy of buying from small breeders preference to large breeders or imters.

here is, however, on the other d, just as strong an argument in or of going to the establishment ch keeps a good sized collection preeding animals always on hands. n granting that a given size and lity of horses might be bought n the small breeder for slightly money, it often happens that the er pays out in traveling expen e than this saving, when he might e economized his time as well as road fare by going direct to some establishment at which he could almost any kind of an animal he ited. Nearly every intending buyhas certain requirements in his d which he expects his purchase to and the chances are he will have ook at a number of horses before locates one that will suit.

is a good plan first to make a rough investigation by correspondin case one is determined to buy n some small breeder, as he can in way save himself making some ecessary trips and can also make a route before he begins to travel. Ve wish to emphasize, however, the antage of visiting a number of importing and breeding establishnts. By visiting a half dozen of se at this time of year, a buyer has hance to inspect several hundred d of horses, and aside from the that it gives him a big assortment hoose from, it also affords a lot of cation. The better class of breedand importers are glad to give tors full opportunity for studying animals they have for sale, and n though such a course saved the er no money at all, it might prove tly profitable to him in adding to experience and observation.

man in the business should keep ted on the stock in his own terri and the acquaintances he makes among other men in his own line while looking up their stock, are well worth making. But if he starts out to travel any distance in search of a breeding animal we believe the idea that he should "fight shy" of the big establishments in order to buy economically, is wrong. Our experience has been that the men with the most money invested in breeding stock, and giving their full time and attention to the business, give good values, as a rule, and expect to sell on a moderately close margin in order to move their stock quickly, and have their profit ready for reinvestment.

Stallion Service Record Book

This book has 200 pages like the specimen page in this ad. It is substantially bound with a good, strong waterproof cover. It has 20 index pages for keeping the owners' names in alphabetical order so that any name or mare can be found quickly.

The breeding contract at the bottom is the strongest possible kind of a note. It is a big help in making collections, as nearly every state has a law for the collection of labor debts without exemption, and this is a contract to pay for services rendered. Before it is signed run a pencil through two of the lines in the contract, leaving the line that makes the kind of a contract you want. Many will sign a contract who would refuse to give a note.

This book has a calendar and a gestation table. It can be used for several sires without carrying more than one book. This is the most complete and up-to-date service record book printed. It is a nice size and can be carried easily in any pocket. Every breeder should have one. After improving it for several years, the result is this most satisfactory book. A complete new edition is just out. Although this new book has double the capacity of those offered heretofore, it sells at the old price. It is not bulky, as it carries no advertising or other unnecessary matter. It will be the standard record book used by the leading breeders.

If you are not satisfied with the book or do not consider it the best and cheapest on the market, return it and your money will be cheerfully refunded. The price is 50 cents; six for $2.75; postage prepaid. Send all orders to the

GRAHAM PUBLISHING CO.
225 West 12th St., Kansas City, Mo.

Sire Lucifer
Mare Bulle Color Gray Age 6
Marks Left front foot white
Womb {Closed / Healthy / Loose} Height 16 hands Colt {Yes / No}
Mare Owner John Brown
P. O. Kansas City, Mo.
Capsule

DATE BRED.

Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1									
22									

RETRIED

	15								
	22								

BREEDING CONTRACT

$15.00 Date Feb. 1, 1914

For services rendered, I promise to pay (fill in with stallion owner's name)
_____ or assigns fifteen dollars
~~When above described mare is known to be in foal~~
~~When above described mare delivers a living colt~~
When colt of above described mare stands and sucks
or before mare changes ownership, mortgaged or leaves county.

Signed John Brown

Page 16

Above shows exact size of page and the way to properly fill out the blank for one form of breeding contract, scratching out extra lines.

When answering advertisements please mention American Breeder.

CHOOSING THE STALLION.

To the American Breeder: As the spring season draws near, the progressive farmer who keeps brood mares is confronted with the problem of choosing a stallion to which to breed. In many cases it is merely a question of eliminating the worst as there are many communities that are not supplied with a good stallion. In many other cases, however, the saving of five dollars on a service fee plays an all too important part. Fifty-five per cent of the stallions licensed in the state are grades or less than grades, which shows that too many are neglecting the matter of patronizing a good sire, and are thereby reducing their profits. A saving of $5 on a service fee often means a loss of $100 or more when the colt is two years old.

R. L. HARRIMAN, Bunceton, Mo.

The Fine Horse and Jack Auctioneer of the West

I sell more horses and jacks than all others. Terms always right: work always up to the highest standard.



When looking at a stallion it is well to ask yourself, "How much would he be worth as a gelding? If his colts are like him will they be good market geldings? How much improvement will he make when bred to the average farm mares?" The answer to these questions will decide whether the horse is a suitable sire or not. In answering them it should be kept in mind that good feet and legs are the first essential of a marketable horse. If the stallion does not have them he cannot be expected to produce them in his offspring,

The state license which the owner of a stallion must show is the best guide to the breeding of the stallion.—J. S. Montgomery, Assistant Animal Husbandman, University Farm, Minnesota.

RECOGNIZING IMPORTANCE OF ANIMAL DISEASE.

Over a million dollars has lately been offered by private parties, to assist in the study and eradication of animal diseases. The Rockefeller Institute for Medical Research has announced that John D. Rockefeller had added 1 million dollars to the general endowment fund of the institution, to be devoted to the study of animal diseases, and that James J. Hill had pledged $50,000 to be used specifically for the investigation of hog cholera.

Be an Auctioneer

Travel over the country and make big money. No other profession can be learned so quickly, that will pay as big wages. Write today for big, free catalogue of Home Study Course, as well as the Actual Practice School.

Next Term Opens April 6.
MISSOURI AUCTION SCHOOL,
Largest in the World.
W. B. Carpenter, President.
14th & Grand Ave., Kansas City, Mo.

W. B. CARPENTER,
14th & Grand Ave., Kansas City, Mo.
Specialist in Auction Sales of LIVE STOCK AND LAND.

REAL EDUCATION.

To the American Breeder: I was very much interested in horse conformation lesson one. It is a step in the right direction as it will have a tendency to educate breeders to demand the right conformation and quality.—C. R. Garner, Wayne County, Ind.

Live Stock Market Review

Light receipts in the past two weeks steadied the horse market. The decreased movement was opportune, and while it was thought to be only temporary it has extended over two weeks and now the supply is falling behind requirements. In the opinion of some marketing in January and February was overdone and gave rise to larger receipts in the first two months this year than in the same period last year, but since then the decrease has been sufficient to make the total number received thus far this year short of the same period last year. In the decreased movement quality has not been holding up and in the past ten days eastern buyers have found it extremely difficult to get the class of drafters they desired. Feed barns seem to be shipped out, and most of the horses coming now are the odds and ends off of farms that have been held on rough feed during the winter. One load of central Missouri horses consigned to market was direct from stalk fields, judging from the cuckleburs they carried. Consigning horses to market in such a shape meant that the owner received $10 to $15 less on the head than they would have brought had they been given the proper grooming for a week prior to shipping.

Demand for horses, though not heavy for any particular class, is fairly large in the aggregate. The east is buying both chunks and drafters, where they can find the right kind. Farm demand is turning a good many rugged workers back to the country and where available farmers are buying mares. A few horses are needed in the south but the large part of that trade is satisfied. While general demand from now on will be along moderate lines receipts will not be heavy and little change is expected in prices. In the past ten days prices were better than during the middle of March, though not as high as they were in January.

Mule prices have not improved any, in fact they are lower than they were two weeks ago and considerably lower than a year ago. Trade in them is dull. Cotton states are buying in limited numbers, and the farm requirements are unusually small. Mules of the better classes seem more plentiful than horses. Construction work appears to be lagging and that to some extent is responsible for the slack demand. Less railroad work was done in March than for a number of years past and lumber camps in many cases were closed. The big part of the surplus supply of mules has been cared for without demoralizing the market.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Drafters, 1700-pound up	$225@280
Drafters, fair to good	150@220
Chunks, good	155@190
Chunks, fair	95@150
Southerners, good to choice	130@150
Southerners	90@125
Driving horses	65 up
Mules—	
13½ to 14½ hands	100@135
14½ to 15½ hands	130@165
15½ to 16 hands	160@210
16½ or better	200@265

Fat Cattle Prices Lower.

Demand for beef in the past two weeks has been the smallest known in any similar period in a number of years past. This is said to be more noticeable in the east and extreme west than in the central part of the country. Many eastern railroads and industrial companies have reduced working forces, and that lack of earning power, together with natural winter inactivities have greatly reduced the per capita spending power. Beef seems to have been the first commodity against which economy was directed. This has come notwithstanding prices are lower than a year ago, and the lowest in three years past at this time. Wholesale beef prices are 2 to 6 cents lower than a year ago, the choice cuts showing the greatest decline. Killers say that with demand for dressed beef greatly curtailed they have had no incentive to increase stocks of meat and with the grassers soon available they are looking for still lower prices. In the past two weeks prices for fat steers were quoted down 25 to 40 cents and now are the lowest this year. The season has turned out entirely contrary to expectations. Receipts have been light but demand has failed in every particular. April will bring the end of the Lenten season, but it will also bring a couple of Jewish holidays. Kosher trade has been good up to this time. The top prices for steers in Chicago in the past ten days was $9.55, and in Kansas City $9.15. Few at either market are selling above $8.75 and at the Missouri river markets the bulk of the offerings are for meat steers. South Texas, Arizona, Utah, Wyoming and Montana have turned large numbers of cattle to inland markets because coast prices have been demoralized for the past two weeks. Most of these western steers are selling at $7.50 to $8.25 on the native side, and at $7 to $7.75 on the quarantine side. Feed lots have cleared rapidly in the past month and the supply on hand now is small. Commission men say that prices closed March at the lowest level they will show this year and with improved industrial conditions which better weather is bound to bring, demand for beef is bound to improve.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$8.75@9.00
Good to choice steers	8.25@8.70
Fair to good steers	7.85@8.20
Common to fair steers	6.65@7.80
Meal fed, choice	8.00@8.40
Meal fed, common to fair	7.00@8.00

Butcher Cattle Slump Also.

Cows and heifers in most cases were quoted down 25 to 35 cents, in some cases more. Receipts have been fairly liberal, mostly medium grades and a large number have been marketed direct from wheat pasturage. In that particular declines showed to meet difference in killing per cent. However the general season is headed towards grass, and the practice of using wheat through the winter so liberally will tend to establish a parity between the dry feed and grass seasons. Few full fed heifers or mixed grades are available and they are bringing firm prices. Yearlings, steers and heifers mixed, and heifers would bring 9 or better. Veal calves were quoted down 50 cents to $1 a hundred pounds. Receipts are increasing rapidly.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$7.00@7.50
Good to choice	6.25@7.00
Fair to good	5.50@6.20
Common to good	4.75@5.45
Canners	4.25@4.70
Heifers—	
Choice	8.25@9.00
Good to choice	7.75@8.20
Plain to fair	6.50@7.70
Common	5.50@6.45
Veal calves	5.50@9.50
Bulls	5.00@7.25

Slack Demand for Stockers.

Owing to an indifferent demand for fat cattle in the past two weeks there has been only a limited demand for stockers and feeders. There is a large inquiry, however, but countrymen feel that prices must go lower, however, the supply is none too large, and as needs for grass become large prices are expected to rally again. April will determine the temper of the general trade as grass will be well enough along then for full grazing. All classes of breeding cattle are holding firm.

The following quotations are for stock and feeding cattle:

Selected feeders	$ 7.50@ 8.00
Good to choice feeders	7.00@ 7.50
Plain to fair feeders	6.50@ 7.00
Selected stockers	7.50@ 8.00
Good to choice stockers	7.00@ 7.45
Plain to fair stockers	6.25@ 7.00
Stock calves	6.40@ 8.25
Stock cows	4.50@ 6.25
Stock heifers	5.00@ 6.75
Milch cows	60.00@110.00



Big Slump in Hogs.

March closed the hog market at the lowest level of the past two months. In Kansas City hogs were selling at $8.25 to $8.45, and in Chicago at $8.30 to $8.70. Light weight hogs at both markets were stronger than heavy hogs, indicating that the presence of shipping demand was the lead in the market. Compared with two weeks ago prices now are 30 to 35 cents lower, and about where they were early in February. The decline occurred with receipts moderate and no indication that they will be liberal for the next five months. The breaks in the market was rather a surprise as it was expected when a shortage began to show that prices would advance. Packers, however, have made a three months' fight to keep the market as near the $8.50 level as possible and they will not let their present advantage yield a 9 cent market very soon. Hogs, however, are scarce, and should demand for fresh pork become strong there would be a vigorous rally in the hog market. In March, St. Louis and Kansas City received more hogs than in the same month last year and other markets reported decreases.

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week
Monday	$8.25@8.60	$8.40@8.7
Tuesday	8.15@8.45	8.35@8.6
Wed., Mar. 25	8.50@8.75	8.40@8.7
Thursday	8.50@8.80	8.45@8.8
Friday	8.40@8.70	8.40@8.7
Saturday	8.25@8.50	8.30@8.6

The following quotations are for hogs:

Choice, 250@300 lbs	$8.35@8.4
Choice, 200@245 lbs	8.30@8.4
Medium weight	8.20@8.4
Light weight	8.15@8.4
Common to fair	6.75@8.1
Stags	6.00@8.4
Boars	4.50@6.7
Bulk of sales	8.20@8.4

Strong Rally in Sheep.

With cattle and hog prices on th down grade the sheep market rallie vigorously in the past two weeks. Bot sheep and lambs sold into new hig positions for the year and at the ac vance demand was active. The caus of the advance is said to be the pro pect of decreasing receipts. The Sa Luis valley has cleaned up and th Arkansas valley now is the only im portant section to market. Ther

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Pleased to show stock, quote prices and answer inquiries at all times.

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For sale. Ten males; bred gilts and small pigs. White faced, Spanish and S. S. Hamburg eggs, $1.00 for 15.

C. E. THOMPSON, Elberfeld, Ind. R. 27.

Eggs and Pigs For Sale

Brown Leghorn and Barred Plymouth Rock eggs; also a few Duroc pigs.

J. M. YOUNG, COPAN, OKLA.

sheep and feed are said to be about 50 per cent short of a year ago. However, south Texas grassers are about ready to come and there will be only a short period of light supplies between fed sheep and grass fat grades. Choice fat lambs are quoted at $8.00 to $8.25, yearlings $6.75 to $7.25, wethers $6.00 to $6.50, and ewes $5.75 to $6.25. Clipped lambs are selling at $6.75 to $7.25 and clipped sheep $5.25 to $5.75.

Grain Prices Turn Down.

The excellent condition of growing wheat together with increased supplies of corn turned grain prices down in the past ten days. Wheat was quoted off 1 to 2 cents a bushel and corn down 3 to 4 cents at the decline demand was active, especially for corn. The only section of the winter wheat belt needing moisture is western Kansas, and there light showers have fallen in the past two days. Oats are quoted weak. Seeding is well along under favorable conditions.

The following quotations are for cash grain in car load lots on the Kansas City market:

Wheat—		
No. 2 hard	85	@89½
No. 3 hard	84½	@88½
No. 2 red	90	@90½
No. 3 red	88	@90
Corn—		
No. 2 white	68	@69½
No. 3 white	67	@67½
No. 2 mixed	67	@68½
No. 3 mixed	65½	@66½
Oats—	Per-Cwt.	
No. 2 white	40	
No. 2 mixed	.38½ @	.39
Chop	1.31	
Rye	.60	@ .61
Kafir	1.70	@1.85
Bran	1.25	@1.26
Barley	.52	@ .57
Shorts	1.26	

Good Demand for Hay.

Trade in hay remains active and prices are firm except for low grade alfalfa, and that is selling slowly. Tame hay is in light supply. Prairie and alfalfa are fairly plentiful. Quotations are as follows: Alfalfa fancy, $17.00@17.50; choice, $16.00@16.50; No. 1, $14.50@15.50; standard, $13.50 @14.00; No. 2, $12.00@13.00; No. 3, $9.50@11.50; prairie choice, $16.00@16.50; No. 1, $14.50@15.50; No. 2, $12.50@14.00; No. 3, $9.00@12.00; timothy choice, $16.00@17.00; No. 1, $15.50@16.00; No. 2, $13.50@15.00; No. 3, $11.50@13.00; clover mixed, choice, $15.50@16.00; No. 1, $14.50@15.00; clover, choice, $14.00@14.50; No. 1, $13.00@13.50; straw, $4.75@5.50; packing hay, $5.00@6.00.

WHO HAS WELSH PONIES?

Carl Seaba, one of our Oklahoma subscribers, writes to know why we do not publish the advertising of any Welsh ponies. We are perfectly willing to sell space to any reputable breeder of or dealer in Welsh ponies, and have no doubt such a person could get satisfactory returns from an American Breeder advertisement.

Hog Breeding; Lesson V

Editor's Note:—So many of our subscribers have written us of their interest in hogs, that we are continuing, in the following article, a series of "lessons" on hog raising. This material is based on the knowledge of practical men and the best trained observation and experimental data. The reader will, of course, need to give all the additional study he can to the subject, but these lessons should serve well as a general guide and a foundation on which to build.

Pastures for Hogs.

There is no better way of cheapening the cost of production than by supplying pastures for hogs. This is a fact which has been shown by work at many different experiment stations over the country and has also been demonstrated by many practical hog feeders. As grain becomes higher in price, it is necessary to find cheaper feed and for this purpose, pasture crops are indispensible.

The Missouri experiment station has carried on extensive experiments with forage crops for swine. The following table emphasizes the economy of forage crops.

Likewise, the Iowa Experiment Station has results which show that pigs pastured on alfalfa returned a profit of more than $3.00 per head with corn at 50 cents per bushel and hogs worth $6.00 per hundred. The same year, hogs fed in dry lots returned a profit of only 61 cents per head.

Other experiment stations have similar data. Such figures, however, do not tell the whole story. The value of pasturing off the crop and by so doing returning the larger amount of fertility, must not be overlooked. It is also claimed by many that hogs run through the summer on forage and then finished in dry lot make greater gain in the dry lot than those grown through the summer in a dry lot rather than on forage.

TABLE SHOWING ECONOMY OF FORAGE CROPS FOR HOG RAISING.

Kind of Forage	Pounds grain per pound gain	Pounds gain per bushel corn fed	Value of pork produced per bushel of corn fed on forage, pork at 6c
Bluegrass	4.50	12.4	$0.74
Alfalfa	3.07	18.2	1.09
Clover	2.95	18.9	1.13
Rape	2.74	20.4	1.22
Rape and Oats	3.60	15.5	.93
Rape, Oats and Clover	2.47	22.6	1.36
Sorghum	4.00	14.0	.84
Cowpeas	3.58	15.6	.94
Soybeans	3.00	18.6	1.12
Rye Grain	1.96	28.5	1.71
Average	3.18	18.4	1.10

The above table shows that on forage it required an average of only 3.18 pounds of grain to produce 1 pound of pork, as compared with 5.11 pounds the average from dry lot feeding trials conducted under similar conditions. This would mean a saving of 38 per cent in the amount of grain fed. The average return per bushel of corn fed when fed to hogs grazing on forage crops was $1.10. The average return per bushel on corn fed in dry lot was 66 cents.

While pastures in general are good, there are some which give larger returns than others. Alfalfa as a swine forage ranks at the very top. This is true for several reasons. It has a long growing season and hence furnishes pasture early and late. It is drouth resisting, growing luxuriantly when many other crops cannot grow for lack of moisture. The composition of the

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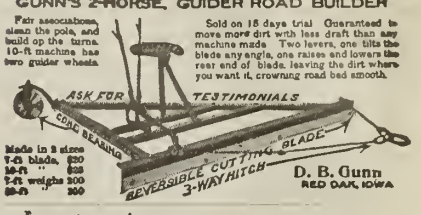
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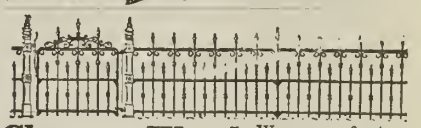
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I've a Message for Live Stock Owners

EVERY MONTH, for nearly three years, I have been using space in this paper, calling attention to the unusual merit of Sal-Vet — the greatest worm destroyer and live stock conditioner ever offered to the American farmer. I have sold thousands of pounds of Sal-Vet to subscribers of this paper, but I still feel there are some who have not accepted my offer to ship them enough Sal-Vet to last their stock 60 days **before they pay me one cent.** If you are one of these, I should be particularly pleased if you will give me the opportunity to prove to you, **before you pay,** that you cannot be without

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S. R. FEIL, Pres. Reg. Pharmacist, Graduate of National Institute of Pharmacy

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I consider Sal-Vet the greatest aid to stockmen, feeders and farmers who want to keep animals free from worms — and in the pink of condition — which means protection against diseases, quicker growth, larger profits. No dosing, drenching or starving—animals doctor themselves.

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All I ask you to do is to fill out the coupon at right. Tell me how many head of stock you have, and I'll ship you enough Sal-Vet to last all your stock 60 days. You simply pay the freight charges when it arrives and when the 60 days are up, report results. If the Sal-Vet I send you fails to do just what I claim, I'll cancel the charge—you won't owe me a single penny. Send the coupon now.

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"I think I got the 'Sal-Vet' just in time, as all around me, my neighbors hogs have been dying. A few of mine got sick but I put them in separate pens, fed them 'Sal-Vet' as directed and they were soon all right.

"Have 40 head of shoats that are doing the finest I ever had any do. Feed 'Sal-Vet' to them in their slop to which the fattening hogs run whenever they want it. I feed it to my sheep and horses; never saw so many worms as the hunches which come from my colts."

—W. M. KINGERY, Overbrook, Kan.

PRICES—40 lbs., $2.25; 100 lbs., $5; 200 lbs., $9; 300 lbs., $13; 500 lbs., $21.12. No orders filled for less than 40 lbs. on this 60 day trial offer. Never sold in bulk; only in Trade-Marked Sal-Vet packages. Shipments for 60 days' trial are based on 1 lb. of Sal-Vet for each sheep or hog, and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular sized package.



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P. O.....

Shipping Sta.....

State..... No. of Sheep.....

Hogs..... Cattle..... Horses.....

plant also makes it especially fitted for balancing a corn ration.

Clover ranks next to alfalfa perhaps as hog pasture. Its composition is very similar to alfalfa. However, it cannot be pastured as early nor will it maintain as many hogs per acre as alfalfa. The crop fits well in corn belt rotations and may be very profitably harvested with swine.

The best annual hog forage is, without much question to be had by seeding as early as possible in the spring either a field of Dwarf Essex rape or a mixture of rape and oats. The rape may be broadcasted at the rate of 6 pounds seed per acre and then followed with a grain drill, using one bushel of oats per acre. There is no annual forage which will produce more pounds of pork per acre than will rape and oats. This crop has given excellent results when compared with other hog pastures by the different experiment stations. Your experiment station can supply you with more detailed information concerning it.

Bluegrass or sorghum are also to be recommended. Bluegrass comes early and late, but takes a rest during hot dry summer. A field of sorghum is very valuable for this hot dry spell when other crops are not doing much growing.

The most progressive hog raisers recognize the importance of having green feed as much as possible and are planning to have all year hog pasture. Wheat or rye sown early in the fall and bluegrass will give winter and early spring pasture. It is surprising how much winter pasture may be obtained with wheat and rye and by saving a field of bluegrass for use in winter. Alfalfa, clover and bluegrass may be used in spring after rye is turned under until the rape and oats are ready. Several different fields of this crop should be sown in order to make it possible to change from one to the other and thereby let them freshen. (Rape will come on again if not grazed too closely). As mentioned above, sorghum gives good results for the hot summer. When cool weather comes and fall rains begin, the rape and bluegrass again produces a large amount of forage. In planning a rotation of crops, enough corn should be included in order that there will be enough to finish the hogs grown through the summer by allowing the hogs to do their own harvesting.

The question of feeding grain on forage is an important one and will be discussed in a later lesson.

THE TYPHOID CAMPAIGN.

To the American Breeder: — As spring approaches, a vast army marshalls it cohorts to "swat the fly" in the perennial campaign against typhoid fever.

This act is now quite generally recognized that the common fly is directly responsible for a large amount of this infection. Typhoid fever is a bacterial disease of the human alimentary canal and can spread only through sewage. Therefore, the first attack should consist in destroying the germs in the sewage.

The best means for sewage disposal is the septic tank, in which the sewage is held until it decays. The process of decay destroys the typhoid germs.—Jerome B. Frisbee, Colorado Agricultural College.

A 7-YEAR-OLD BREAD MAKER.

That a girl only 7 years old should be able to make bread is remarkable. That the bread she made should be graded 91 in a bread making contest is still more remarkable. Leta Moore of Oberlin, Kas., who did this, was the youngest competitor in the bread making contest, held in connection with the farmers' institute at Oberlin recently.

Save this paper, save the next one, keep them all in shape to use with an American Breeder Binder.

A Department For Women

ADVICE TO COUNTRY GIRLS.

The Young Women's Christian Association sends out the following good advice to farmers' daughters:

"Girls should never ask the way of any one but officials on duty, such as policemen, railway officials or postmen.

"Girls should never stay to help a woman who apparently faints at their feet, but should immediately call a policeman to aid her.

"Girls should never go to an address given them by a stranger.

"Girls should never go with a stranger, even if the stranger is dressed as a hospital nurse, or believe stories of their relatives having suffered accident, or having been taken ill suddenly, as this is a common device to kidnap girls.

"Girls should never accept candy, food, a glass of water or smell flowers offered to them by strangers. Neither should they buy scents or food or candy at their doors. Any of those things may contain drugs.

"Girls should never take situations without first making inquiries through a society active or affiliated in travelers' aid work.

"Girls should never go to any large town even for one night without knowing of a safe lodging."

Plans are under way to have the above words of caution posted in every railway and street car station in the United States, that our girls may be warned of the dangers awaiting them while traveling.

IS THE INCUBATOR BETTER?

To the American Breeder: The hen is an efficient mother and has certain advantages which no artificial system has yet been able to provide, but the incubator is better adapted to large enterprises and to some small ones where the hen is not properly understood. Notwithstanding the popularity of incubators, large and small, and of brooders of different styles and sizes, there are yet many of our best authorities as well as our most successful raisers that maintain that there is no incubator or brooder that can rear chicks quite equal to those hatched and raised by the natural process.

There are, however, a few fundamental advantages in the old-fashioned method for the small grower. First of all a good setting hen involves very little additional expense—none at all if she is one of your own flock. Second, a small number of eggs may be set, thereby allowing incubation soon after eggs are laid which often means better hatches and stronger chicks. Third, with proper arrangements, and up to a small limit, the same number of eggs set under hens, requires no more work than when in an incubator. Fourth, fewer eggs are spoiled when a hen abandons a nest than when an incubator goes wrong. Fifth, perhaps the greatest advantage of all lies in the fact that the average hen takes a great deal better care of a young chick than the average human being can take. Sixth, the hen supplies much cheaper labor. Chicks with hens require very much less attention than those reared in brooders. Finally, results are usually more satisfactory because of less mortality and with only average skill, growth is much more rapid.

Man selects a box of large or small dimensions, but usually not less than ten or twelve inches in height, places therein a nest of hay, the eggs, the hen, and outside a little water and corn, and expects the hen to do the rest. Of course the hen has to leave the nest, and to return she must jump first upon the edge of the box ten or twelve inches high and from this perch she is expected to alight in the midst of 13 to 15 eggs without striking one. If the hen selected that nest it would be where she could walk on and off, and the sensational high dive would be omitted from the daily program.—A. C. Smith, Poultryman, University Farm, St. Paul.



THE BANANA—A FRUIT IN A STERILE PACKAGE.

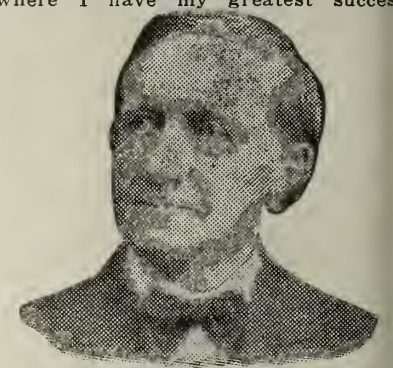
With the increasing demand for fresh fruits at all seasons of the year has come the difficulty of supplying them in a condition in which the dangers of contamination are largely averted. Decay is one of the limiting factors in the use of fresh fruits. Among the many fruits there is one which is equipped in its native form with a protective covering that calls for more than passing mention. Some time ago the Journal of the American Medical Association emphasized the advantages afforded by the banana as a wholesome food and ventured the suggestion that this fruit, though growing in popularity, is still underestimated in American households. The banana consists, in its green state, largely of starch and water. The essential change during the process of ripening is a conversion of the starch into sugar. The rate of ripening is dependent on the temperature. The edible portion of each fruit is packed away in a peel which serves a more useful purpose than has hitherto been realized. Experiments on the fruit in diferent stages show that the inner portions of the pulp of sound bananas are perfectly sterile. The peel is singularly resistant to invasion by bacteria. Even when bananas were immersed in fluids containing disease germs they did not penetrate into the interior. The probability of infection through the peel is therefore slight, though germs on the peel might be transferred to the consumer's fingers and thence to the mouth. This is an interesting example of a food delivered by Nature in practically sterile packages. Nature's wholesome service should not be undone by careless methods of marketing such foods.

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9877. Girls Coat. Cut in 5 sizes: 2, 4, 6, 8 and 10 years. It requires 3 yards of 44-inch material for a 6-year size. Price 10c.

9882. Ladies' Apron. Cut in 3 sizes: Small, medium and large. It requires 3¼ yards of 36-inch material for a medium size. Price 10c.

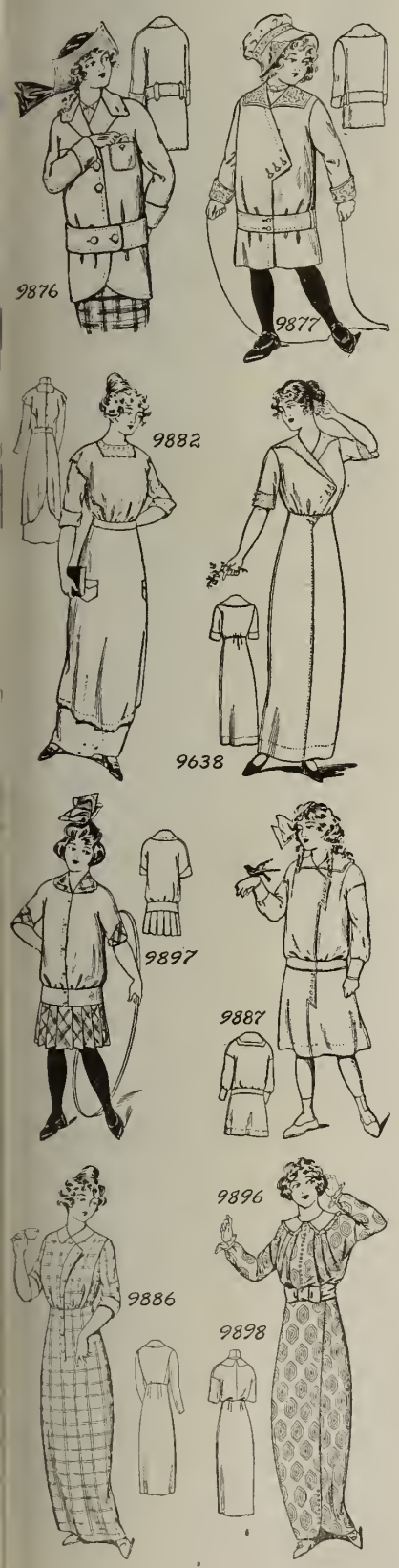
9638. Ladies' Dress. Cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. It requires 6 yards of 36-inch material for a 36-inch size. Price 10c.

9897. Girl's Dress with Lining. Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3½ yards of 40-inch material for an 8-year size. Price 10c.

9887. Girl's Dress (with lining.) Cut in 5 sizes: 8, 10, 12, 14 and 16 years. It requires 3¾ yards of 40-inch material for a 12-year size. Price 10c.

9886. Ladies' House Dress. Cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5¼ yards of 40-inch material for a 34-inch size. The skirt measures 1¾ yards at the foot, in a medium size. Price 10c.

9896-9898. Ladies' Costume. Waist 9896; cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 9898, cut in 6 sizes: 22, 24, 26. 28, 30 and 32 inches waist measure. It requires 5¼ yards of 42-inch material for a 38-inch size. The skirt measures 1⅝ yards at the lower edge. Two separate patterns, 10c for each pattern.



Pattern Coupon.

In ordering patterns, be sure and fill in name and address plainly, also number and size of pattern desired.

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Address all orders to Pattern Department, American Breeder, 225 West 12th St., Kansas City, Mo.

SPECIAL ANNOUNCEMENT.

We will forward, on receipt of 5c, the Spring number of the Home Dressmaker, illustrating the latest embroidery designs, as well as hundreds of designs of garments for Misses', Women and Children, and containing two pages of hints on Home Dressmaking.

SCALE OF POINTS FOR BREAD.

To the American Breeder:—Because of the fact that good bread has so much to do with the health and happiness of the people of our land, we give the subject of breadmaking special emphasis in the work of the Rural Schools, the Industrial Contest, and the Junior Short Course week. The accompanying score card for judging bread is used in our judging at the industrial contests, local, county and state.

White Bread.

General appearance	5
Proper baking	10
Odor	10
Flavor	30
Grain and texture	20
Lightness	10
Crumb	10
Color	5
	100

Rules for Judging.

General Appearance.—The loaf should be well rounded over the top, not flattened, not extending over the sides of the pan nor cracked at the sides, and evenly baked on all sides.

Proper Baking.—Indicated by color and thickness of crust. Crust should be a chestnut brown on all sides of loaf, and about one-eighth of an inch in thickness. Also, center of loaf must be well done, not soggy.

Odor.—Sweet, nutty odor, with no suggestion of a sour or rancid smell.

Flavor.—The flavor should be sweet and nutty, suggesting the taste of wheat.

Grain and Texture.—The cut surface of the loaf should be silky in appearance, evenly honey-combed, and the holes of aeration rather small.

Lightness.—A well-risen loaf is about twice the size of the dough when placed in the pan, and the cut surface when pressed with the finger is elastic.

Crumb.—The crumb should be glossy, moist, but not gummy, when pressed between the fingers, nor dry and crumbly.

Color.—Inside of loaf should be creamy white, not snowy white.—Mary L. Bull, Domestic Science, Extension Division, University Farm, Minn.

QUICK SERVICE.

To the American Breeder: Horse sold on first inquiry. Stop advertisement and send bill.—O. K. Chandler, Ringgold County, Ia.

A Horse Picked to Pieces.

Editor's Note: In a recent issue we published the photograph of a heavy horse sold on the Kansas City market and asked our readers to give its market classification and criticise its conformation. Following are some of the replies received.

C. R. Garner, Wayne County, Ind.

Class.—Drafter of second sort; logger.
Lacking quality.
Slightly dish faced.
Wide between the ears.
Does not carry his ears erect.
Plain in neck and head.
Excessively high on withers.
Long in the back and low in the back, and I have yet to see one of this conformation that was ribbed up closely as he should be.
Medium bone for a 1700 pound horse.

Thos. P. Watkins, Marion County, O.

Neck too low and straight.
Back too long and low; serious.
Rump too short and steep.
Hind legs too far back; serious.
Front legs too far under hose; this cut represents only one front leg.
Tail too low.
In conclusion, I would say, the horse is too long for his height.

R. C. McConnell, Larimer County, O.

Horses too long in coupling causes a thin flank and short quarters, not deep enough in the barrel; serious.
Too straight on hind pasterns; his picture shows to be a rangy horse, not enough body for the legs.
He has a very poor eye, not intelligent looking, which I call a bad fault.
The picture does not show very plain in my copy, but I don't like the horse from his withers back.

R. L. Scherer, Morrill County, Neb.

Draft horse.
Not "low set" enough.
Not enough depth of body.
Not great enough "heart girth."
Not low enough in back.
Not enough spring in ribs.
Weak hocks.
Too long in back.

Wm. Hoehn, Blue Earth County, Minn.

Nostrils stand open too much.
Eye too small.
Front legs too high in heel and too narrow in heel.
Too thin in flank.
Slightly crooked in hind legs.
Too straight in hind pastern.
Not very well muscled in gaskin.

J. M. Turner, Clinton County, Ind.

Horse should go to Eastern markets.
Ears too small.
Neck too straight.
Front legs too small just below the knees.
Tail too small at the root.
Too thick at throat latch.
Does not look just right at breast; does not look like a full flat breast.

B. B. Rice, Hall County, Neb.

Light drafter; logger.
Poor type of a drafter; unbalanced in conformation; serious.
Too upstanding, too rangy, lacks width and depth of body; serious.
Deficient in first essential; viz., constitution; serious.
Of medium bone; semi-serious.
Thin flesh; not heavily musceled; serious.
Lacking in breediness; serious.
Of coarse texture, bone, hair and skin not enduring; serious.
Deficient in propelling power; hind quarters medium; serious.
Split up too much behind, narrow through stifles, quarters, thighs and rear gaskins, lightly muscled; serious.
Pasterns too upright; slight.
Hocks only medium size and meaty (looks like a spavin on right hock); serious.
Thinly muscled on back; light and narrow of loin; serious.
A little long in middle piece; a little short and steep of croup; slight; serious.
Lacks depth of flank (hard keeper); serious.
Coupling weak, the weakest link in the chain; serious.
Narrow of chest; serious.
Lightly muscled of chest; slight.
Whole horse lacks stamina or bottom; serious.
Weak chin, lips loosely pressed, sluggishness, short muzzle; slight.
Roman nosed, face weak; slight.
Small, sunken, dull eye; deficient in vigor and nerve force; serious.
Distance from eye to ear too short, little brain, bull headed, lacks snap and energy in action; serious.
Ears too far apart, too stubby, coarse and poorly carried; slight.
A broncho head (dam part broncho, perhaps), coarse texture, jaws heavy and narrow in the angle; serious.
Heavy in throat latch, light in crest; slight.
Too upright in pasterns feet; serious.
Front legs set back a little too close; slight.
Front hoofs seem wrinkled, poor quality, stub toed, narrow heels; slight.
Seems to point with left hind foot, hocks not parallel; slight.

Dr. Leon Van Meldert, Harris County, Texas.

Draft horse—grade Percheron.
General conformation: If we represent by 100 the height of the horse at his withers, we will find that his head, neck, shoulders, are normal, but that he lacks in the length of the croup, being 33.75 when he should be 38 in the thigh, being 25 when he should be 28 in the leg, 30 instead of 35 in the vertical diameter of the chest, at the middle of the back 42.50 instead of 45. This horse is also extra

ALFALFA
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Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Building, Kansas City, Mo.

Wyoming Stock Ranch

For sale. 800 to 2,000 acres at $20 to $30 per acre; fine improvements; open water; open and free range; free water; private ditches; wild and tame hay; alfalfa; grain; vegetables; flowers, etc. An ideal home and finest range in the world. Two miles from postoffice and store. For further information, address

R. E. CLARK,
Cora, Fremont County, Wyoming.

GRASS SEED; FENCE POSTS.
1,000 bushels of Kentucky blue grass seed and 4,000 cedar fence posts for sale.
COOK & BROWN, Lexington, Ky.

320 Acre Ranch

For sale. Plenty free range and timber. Price $15 per acre.
L. G. STRONG, Montpelier, Idaho.

WANTED IMPROVED FARMS AND WILD LANDS.—Best system for quick results. Full particulars and magazine free. Don't pay big commissions.
WESTERN SALES AGENCY,
Minneapolis, Minnesota.

long; from the point of the shoulder to the point of the haunch he measures 76.25 while 72 should be enough.

Bones: This horse seems to be light boned; his hocks are small; his canon bones also.

Tendons: Behind his front canon bones the tendons are failing.

Attitude: This horse seems to have bad attitude in the left hind leg; a straight line passing on the edge of the hind canon does not reach the point of the ischion bones as it should.

Articular Angles: The shoulder is too straight (50F in place of 48F on the horizon); the shoulder angle is too open (96F in lieu of 86F); the croup is too slanting (23F in lieu of 15F); the femoro tibial angle is too open (110F in lieu of 102F).

H. H. McCune, Union County, Ohio.

I believe this horse to be a cross by a Percheron Sire and Road Dam.

Though he weighs seventeen hundred, call him a very poor type of draft horse.

I think he stands high, light in bone; very light in body and short in rump.

V. J. Gross, Kossuth County, Ia.

Roman nose with thick nostrils.
Ears badly set on to head.
Very dull eye.
Very thick through the jaw.
Neck too straight.
Too thick in the throat latch.
Shallow chested.
Very short quartered in front.
Very short in arm of leg.
Calf kneed.
Narrow girth.
Cuts up in the flank very bad.
Extra light in the stifle.
Very long in the gaskin.
Stands too slanting from stifle to hock.
Too long from hock to ground.
Stands back too far at ankle.

Clara K. Mayer, Whitman County, Washington.

According to weight this horse belongs to the draft class, but according to illustrated conformation he belongs to the misfit class, lacking merit, substance, and real draft horse qualities.

Head and Neck: Jaws slightly heavy, eyes entirely too small, not prominent, showing lack of energy; serious; ½ point off. Forehead rounding, showing nervous temperament; slightly; ¼ point off. Ears set entirely too far apart, not well carried, seriously indicating sluggish disposition; ½ point off. Crest too small; slightly; ¼ point off.

Too straight and high in the shoulders, indicating fistulous withers; serious; 1 point off.

Fore quarters: Forearm sparingly muscled; slightly; ¼ point off. A little light from knee on down. hoof seems to be slightly contracted and narrow at heel; 1 point off.

Body: Chest apparently narrow; slightly; ¼ point off. Back too long; slightly; ¼ point off. Loins a little light; slightly; ¼ point off. Flanks entirely too high, showing a shortness of last rib; serious; ½ point off.

Hind quarters: Entirely too light; serious. Croup a little short; slightly; ¼ point off. Entirely too low at tail head, showing lack of muscular development; serious; ½ point off. Thighs narrow; slightly; ¼ point off. Gaskin too long and sparingly muscled; serious; ½ point off. Hocks entirely too narrow, showing lack of definiteness and clean cut, also a little "sickled"; serious 2 points off. Cannons too long; serious; ½ point off.

Scoring this illustration as to general draft horse conformation, from the tips of his ears to the bottom of his feet, would cut him about 16 points, including some of the minor defects which I have not mentioned.

J. C. Henderson, Freestone County, Texas.

Class: Southern chunk and graded Percheron.

Heart or girth measure too small and ribs not sprung enough to give lung power.

Back too long from withers to hip bone.

Coupling too long between rib and hip bone.

Filler somewhat small and high in flank.

Not a good stifle joint.

A bad hock joint.

A weak pastern joint.

Very inferior bone all round. Also a bad hoof.

D. L. Olson, Sanpete County, Utah.

General conformation of head, poor. Ears are not well carried. Too short from eye to ear. Eye very poor.

Cannon bone too long on both front and behind.

Tendon on front leg tied in too much under knee.

Body too long.

Not enough length in ribs.

Up in the flank too much.

Back too long.

Croup a little higher.

Hock isn't correctly set.

A. W. Reams, Fillmore County, Neb.

The eyes too small and sunk too deep.

The ears too small.

The nostrils are too big for the head.

Too long coupled between the ribs and hip.

The hip drops too much.

The legs too small for the body.

The neck is too small.

No muscles for the size of the body.

Light bone all around.

W. E. Griffith, Adams County, Iowa.

I would call him a good farm chunk.

A little too much length of body and not enough of depth.

Cut too high in flank, couples too low.

Not enough arch to neck and crest.

Too much length to pasterns, almost coon-footed.

Almost a half-moon curve from toe to flank.

George Shookman, Sauk County, Wis.

Too long in the back; serious.

Too peaked at the hips; slight.

Lacks muscle on hind quarters; serious.

I would say this horse belongs to the draft class.

R. J. Lydic, Dawson County, Nebraska.

Market class; farm worker.

Horse badly blind in right eye.

Albert Gemmer, Macon County, Illinois.

Too high in the withers.

Would class him as a dray horse.

Neck is too short.

A little light behind.

USED THREE KINDS; OUR SERVICE BOOK BEST.

To the American Breeder: Please find enclosed a one dollar bill, for two of your "Stallion Service Record Books." I used three different kinds last season but like yours the best. Breeders will have less trouble when using these. There are generally a few men who object to signing these, but they are just the ones we should take pains to see that they do sign.

I am of the same opinion as the editor in regard to changing measurements on registered jacks, as the time is close at hand when the public will demand a larger type of mules. And we cannot get that by using small, inferior jacks. My jack measures 62½ inches high, 66 inches girth, 8½ inch leg, 16 inches around the knee, 21½ inch forearm, weighs 1,000 pounds. There are five jacks in my neighborhood and this jack bred nearly as many as all the balance. Some brought mares as far as twenty miles; so you see it pays to get a jack with the size.—Dr. H. H. Halstead, Brown County, Neb.

WHY THEY BUY THE BINDER.

To the American Breeder: A friend of mine loaned me a copy of the American Breeder and I liked it so well I want to subscribe and herewith send you check for a three year subscription, and a binder, too, as your paper looks to be worth preserving. Please let my subscription begin with the issue of March 5th.—H. J. Covell, Shawnee County, Kas.

Modern Horse Breaking

(Continued from page 5.)

in foal, I used a capsule and she has a colt as fine as you can find. As for vitality there is no difference. I have the best luck with the capsule on the shy breeding mares. Have got ten colts out of eleven mares. Missed the natural service. They come and ask me to use the capsule, but I do not use it much till the last of April when the weather is more favorable. Now Mr. Graham, if knowing what I know of capsule breeding, I should have to give it up, I would sell my stock and quit business at once.—G. B. Bricker, Earleton, Kansas.

March 26, 1914.—I have been using capsules for two years. I find them good on shy breeders. I have got mares in foal that would not stick with natural service. The colt that took first premium at the Jacksonville fair was a capsule colt. It was a good one, too.—J. R. Brooks, Cairo Mo.

March 27, 1914.—There have been inquiries in regard to capsule breeding. I will answer through the American Breeder. I find that they are a perfect success when used right and will be found more successful on shy breeders. The colts are just the same.—J. H. Smith, Kingfisher, Oklahoma.

March 30, 1914—I find breeding with capsules very successful. Shy mares are a success for me. The past year I had three ten year old mares, never in foal before, which are in foal this year with capsules. Also one mare eighteen years old had had only one colt in nine years. Mare is in foal with a capsule. I find capsule breeding a success and as safe as natural breeding.—E. L. Becott, Solomon, Kansas.

March 30, 1914.—We are strong believers in the methods indorsed by you in regard to scientific breeding.—J. A. Evermeyer & Son, Troy, Mo.

March 30, 1914.—Will say that I had good success with capsule breeding in the year 1913, and expect better success this season. It is the only way to insure foals from shy breeding mares. If the mare can be settled at all the capsule will surely do the work.—J. J. Ernest, Floris, Iowa.

March 30, 1914.—Last spring was my first experience with capsules. I bred only a few mares. Some, I know, are in foal. Others I haven't seen since I bred them. I think the capsuling, when rightly done, is more sure than the natural service. I haven't seen a capsule colt yet. but I believe they will be as good as from natural service.—Thos. S. Young, Maryville, Mo.

March 30, 1914.—In regard to capsule breeding I will say, I can show at least three mares heavy in foal, right now, by capsule breeding, which failed to settle to natural service for two years or more, previous to last season. Capsule colts are as good as any colts can be.—F. D. Fruin, Gilman, Illinois.

March 31, 1914.—I think the capsule system is alright. I settled mares that I could not with the natural service. I settled one mare that had been bred from three years old to eleven, every year. The man told me he would give me $25.00 if I could get her in foal. I bred another mare and took the semen and put it in a capsule and she found a foal alright. He brought her back and said that what she needed was another capsule and she is in foal again. I used the capsule system two years and I think it is better than the natural service.—Walter Smith, Woodson, Illinois.

March 30, 1914.—I think that capsule breeding is just as good as the natural service, and better, on shy mares. I have had very good success with capsules and will continue to use them as long as I am in the breeding business.—D. M. Gilchrist, Glasgow, Mo.

March 31, 1914.—I will say that capsule breeding is a good deal better on shy breeding mares than the natural service. I have bred several twelve and fourteen-year-old mares with capsules and now they have colts. Some of them had never been bred before. The colts are just as good as any, no difference. I would not undertake to breed without the capsule system. I breed half, or more of the mares with capsules and customers are all satisfied with same.—H. N. Highfill, Paragould, Ark.

March 31, 1914.—I can get more mares with foal with capsules than the natural service. The colts are just as strong and good. I bred a mare one whole season, the natural service and did not get her in foal. I bred her three times the next season, then I tried the capsule and got her in foal the first time.—F. M. Clevenher Centerville, Indiana.

EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Ponies for sale. W. H. Fulcomer, Belleville Republic County, Kansas.

SADDLERS FOR SALE.

Registered stallions and mares; all ages. Also a few Hereford bulls.
H. A. GREENWELL,. Lakenan, Mo

One Left For Sale

Saddle stallion; sire Rex McDonald 833; dam, Maggie King by Forest King color bay; registered. Price $250 cash or bankable note.
O. T. KARR, Quitman, Mo

Stallion For Service

Council Chimes 2:07½; pure bred license No. 1769.

A demonstrated speed sire; sire of Minnie Chimes 2:04½, and many others in standard time. Liberal terms on application. Write for pedigree and information.

I have a good French draft stallion and a big grey jack for sale.
DR. D. H. BIBENS, Larned, Kans.

TROTTING BRED STALLIONS

For sale. Four good ones, sired by Cleremont Director, matinee record 2:17. All are registered. Two are grandsons of Creseus. One is out of The Princess, 2:19¼ P., and 2:26¼ at the trot. The other is out of Jessie Mona (by Kewanee Boy and out of The Princess). Come and see them. Olathe is 22 miles from K. C. Frisco and Santa Fe main lines and hourly trains on electric line.
F. M. LORIMER, Mgr., Olathe, Kas

Registered Morgan Stallion

For sale. A prize winner.
G. F. GILMAN,
Harristown, Ill.

CHOICE MORGAN STALLION.

For Sale. Coming 5 years old, perfect in disposition and perfectly broke to ride and drive, single or double. Will weigh about 1,050; jet black with star; got by Flying Morgan, Jr., out of Blackbird by Herod; registered and a beautiful horse. Is related to most of my mares or would not be for sale.
JENNIE K. LEWIS,
White Sulphur Springs, Mont.

Morgan Stallion

For sale: A fine, large, registered horse; coming three years; dark chestnut; will mature around 1,200 pounds; sound and a good looker.
E. E. TREDWAY
Warsaw, - - - - Ohio

REGISTERED MORGANS.

My Morgans are large; 15 to 1 hands and 1050 to 1300 pounds; have clean, heavy bone and possess all of the style and endurance for which the breed is noted.

Having bought Headlight Morgan to head a selected stud of The Admiral mares, The Admiral is now for sale. He is 15¾ hands high; weight 125 pounds, and is the greatest all-round horse I know. I have 200 of his get on the place; part of them for sale.
RICHARD SELLMAN, Rochelle, Texas

Rules for Capsule Breeding.

Some breeders advertise a special hour of the day, and special days of the week for capsule breeding. Three days for capsule breeding, with only one service on such days, and the other three days for natural service. Two services a day may be given on the alternate days for natural service. This has been found a very good plan for capsule breeding. Nine services a week is all any mature stallion or jack can stand successfully. If anyone should be present on the capsule days who objects to capsules, he can be instructed to bring his mare back at a particular time for natural service. No one need be offended.

Other breeders use the telephone making dates for capsule breeding on rainy days, Saturdays and other times, when crowded. The object is to have a number of mares present at a particular time. As the mares come to the barn they should be examined. During these examinations, keep in mind the condition of each cervix (opening of the womb) so as to know how to insert the capsule quickly. If it should be closed, one finger should be inserted so that the capsule will slip in easily.

Evey breeder should have a provision for boiling water and a place in which to wash his hands, and a good number of clean towels. This preparation is absolutely necessary whether artificial breeding is done or not. No mare should ever be opened up until the hands have been thoroughly washed with soap and water, and rinsed in sterilized (boiled) water. Do not use any antiseptics or grease during breeding operations of any kind. The hands should always be washed before being inserted into the next mare. whether it is for the purpose of examination or inserting capsules. A number of small towels should be on hand and they should be sent to the laundry after being used once. This will not be very expensive for the towels are small.

An old wash boiler can be used for boiling the water. Another large vessel with a cut-off valve in it should be located within easy reach so that the hands can be rinsed under the stream without much waste and not contaminate the water. All of this preparation is necessary for natural service breeding. No breeder can expect to have the best results without making examinations.

All the mare owners present are instructed to hold their mares and to assist each other during the breeding operations. One man should hold the mare's head while a neighbor holds up one front foot. When the breeding work starts they should lead their mares up close to the work and have the mares take their turn rapidly. It is best to have a box with a few capsules in it near the door where the neighbors can examine them; then they will not interfere with the clean capsules. Ask those present to do their visiting after the breeding is done so as not to interfere with the rapidity of the work when it is started.

The Natural Temperature Extractor is sucked full of boiling water and squirted out several times; then it is rinsed in boiling water and laid in a galvanized pan 40 inches long, eight inches wide and six inches deep. This pan has been scalded and is now full of sterilized (boiled) water at 100 degrees. Another cup, preferably of earthen ware, holding about a half gallon should also be scalded out and placed in the pan in which the water should be kept at 100 degrees. If the one who handles the stallion is to do the breeding, he should thoroughly wash his hands, then put on a pair of white cloth gloves (that can be bought for 10 cents) which have not been used since being boiled. He should have several pairs of these so as to have a clean pair each time.

The helper (who may be a visitor) is instructed to thoroughly wash his hands and bring the semen extractor and the cup, both full of warm water at 100 degrees, when the stallion makes the service. The one doing the breeding can remove the white gloves, take the cup containing the warm water, which has kept it warm, and throw it out so as to catch the semen in case any is spilled or withdrawn. If it is caught in the cup the extractor is quickly emptied and sucked into it. Then proceed with the breeding. If no semen is withdrawn the water is emptied out of the semen extractor, and the operator then proceeds to get the semen from the mare. After the semen is sucked into the extractor the long point is quickly removed; a plug is inserted into the extractor, which retains the semen. The extractor is then inserted into the vagina of the mare, where it is sure to retain the proper temperature. (More failures in artificial breeding have been caused by not keeping the right temperature, than from any other causes excepting the presence of disease.)

The helper (whose hands are washed clean) is then instructed to hold the extractor in the vagina of the mare. A number of capsules have been placed on a clean towel and a portion of the towel has been thrown over them to keep them free from dust. The caps have been removed and the operator holds the capsule in a shaded place while the helper fills the capsule half full. If the semen should come too fast it can be sucked back into the extractor and cut off. The helper then should put the extractor back into the mare while the operator quickly places the cap on the capsule and closes his hand about it so as to keep it warm and away from the direct rays of the sun. Breeding can be done successfully even on a very bright day provided the direct rays of the sun does not strike the semen.

The operator should wash his hands before breeding the next mare so as not to carry infection from one mare to the other. If a doubtful mare is bred with a capsule, she should be bred last. The mare upon which the natural service is to be made should be a mare with a colt by her side, if possible, because she usually is healthy, and free from disease. She should also be gentle. The helper should be instructed how to insert the extractor into the mare so as not to cause the mare to be excited. If the semen is taken from the uterus there is very little necessity for rebreeding the mare which has been served. If the semen is caught in a bowl or taken from the vagina, then it will be necessary to breed that mare also with a capsule.

The Natural Temperature Semen Extractor practically does away with the chances of the semen getting too hot or too cold. Most breeders who have failed have cooked the semen. The semen should never get below 95 degrees or above 101 degrees. This will be very easily insured with the Natural Temperature Semen Extractor. This instrument will probably do more for artificial breeding than all the other methods or instruments combined. A lot of experiments have been carried on the last year concerning temperature. It is very difficult for even an experienced man to keep the semen just right for a great length of time. There is no reason why practically every breeder in the country cannot make a success of capsule breeding if he will follow these rules. A little thought on this subject will save the ordinary breeder hundreds of dollars in money, give him and his breeding stock a better reputation and be an advantage to his customers.

Percheron Mares and Fillies for Sale

Mostly blacks and dark grays. Farm raised but bighly bred and the breedy, productive kind. If you want to add to your herd or to your farm equipment a team of young mares you will be proud of I can supply you. Correspondence and inspection solicited.

THESE MARES AND FILLIES ARE BRED TO MY CHAMPION IMPORTED STALLION, GLACIS 55260 (71473).

Farm Easily and Quickly Reached From My Office.

F. P. BURNAP

107 West 10th St., KANSAS CITY, MO.



Imported Percherons and Belgians

All horses personally selected direct from the farmers, for good bone and of the best draft type and conformation. All will mature from a ton to 2,300-pound horses. I give a gilt edge guarantee good for two years. I am going to price them down very reasonable. Come and see them and be convinced.

W. H. Richards, :-: Emporia, Kas.

(Barns four blocks from A. T. & S. F. Depot.)

Want a Stallion? Time Is Short.

GO WHERE YOU CAN MAKE A CHOICE

From 2 barns of good ones. Here are some samples

Hoof No. 36; imported black Percheron; 2 years past; weighs now 2000 pounds and outstanding good.

Hoof Nos. 22, 28, 32, 22 and 24, all of my last importation, blacks and dark grays, combine quality with plenty of size and substance.

In mares I have the champion and reserve champion Belgians at Topeka, Kas., last fall, and a bunch of producing Percherons.

I have nearly one barn full of Percheron and Belgian colts from yearlings up.

Remember, a man with only one horse don't have to sell; he can stand it again. We have to sell and we make prices that sell them.

Route 9. L. R. WILEY, Emporia, Kas

IMPORTED PERCHERON STALLIONS

Each year I select 35 or 40 horses in France, so good and so correct in type, that any one of them will prove a great benefit to the man who buys it.

At the shows of the Southwest circuit, our horses won every championship and every group of five in 1913, as they have done most of the past five years. Our horses are handsome; our contract just and right; our insurance the best. Come and see me.

PERCHERON IMPORTING CO.,

CHAS. R. KIRK, Mgr. South St. Joseph, Mo.

WHITEOAK STOCK FARM

American Bred Percheron Stallions and Mares.



The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.

PERCHERONS at PRICES

that will profit early buyers of both stallions and mares. The mares range in age from 4 to 8 years old, and the stallions from 3 to 5. I have been in the business a long time and wish to reduce my stock. These are all good ones. If sold in a bunch I will make the price right.

I. H. VANNORSDEL, Kingsley, Iowa

Percheron Stallions, Jacks and Jennets



Imported black Percheron stallions, 5 and 6 years old; weight from 1700 to 2100 pounds. These horses are well broke and tried breeders. Can show best colts in Kansas. Can use a strictly good two or three year old jack on a trade for one of these stallions.

Big, black, registered Mammoth jacks and jennets; 1 to 5 years old. Jacks 15 to 16 hands high; tried breeders and quick workers. Can show colts. Herd headed by imported Spanish jack. We won more prizes at the Kansas Sate Fair in 1913 that all our competitors. Farm 30 miles Northwest of Hutchinson. Come and see us. Will meet trains at Chase or Raymond.

J. P. & M. H. MALONE, CHASE, RICE COUNTY, KANSAS.

PERCHERONS

Prices That Will Profit Early Buyers on Both Stallions and Mares.

The mares range in age from weanlings to aged mares, and the stallions from weanlings to 3-year olds past.

I have been in the business a long time and on account of not being able to get competent help am compelled to close out. If sold in a bunch I will make the price right.

GEORGE HIRSCHMAN, Pierson, Iowa

Questions and Answers.

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

849.—MUCOUS FOLDS—In some mares I have found a cord or muscle about one-eighth to one-sixth of an inch thick, attached to the lower and upper sides of the vagina about half way between the cervix and vulva. Can this be removed or cut without incurring some danger of it being a blood vessel? It is difficult to get such mares with foal.—North Dakota Subscriber.

REPLY.—Such mucuous folds do not ordinarily interfere with the introduction of a capsule, and this method should be employed in breeding this class of mares.

850.—ABSCESSES—I have a mare that broke out in two places, one place on the right shoulder about three inches below the top of her withers, and in about three weeks broke out over the right kidney. There was a yellowish white discharge from both of these places. I had a veterinarian look at her and he did not know what was the matter with her. He said it resembled farcy only that there was no boils. The place on her shoulder is healed up now but the other place is still running. I have been cleaning it out with carbolic solution every few days. Would like to know what is the matter with her and what to use.—Montana Subscriber.

REPLY.—This is simply a case of infection with pus organisms giving rise to abscesses. Your carbolic acid wash is all right provided the abscesses drain properly.

851.—NATURAL TEMPERATURE SEMEN EXTRACTOR—Would you please give a little information on the Natural Temperature Semen Extractor. Is it as large as the Carlson Semen Extractor? How can you tell when the temperature is right?—Kansas Subscriber.

REPLY.—It will not hold quite as much semen as the Carlson semen extractor. It is lighter and more easily handled. When the extractor is placed in the vagina of a mare having the right temperature, you will not need to worry about the temperature.

852.—WOUNDS—I turned my team loose in a neighbor's pasture a short time since and both of them got cut on the front foot between the hoof and ankle. Please tell me what is best to use on them at this time of year to heal the wounds. Am keeping them in the barn and have their feet tied up. Have been using peroxide and dusting on slacked lime but they are not doing very well. The weather has been cold and they got in the snow. One of the horses nearly bled to death. Should I feed anything besides hay and oats to build them up?—Montana Subscriber.

REPLY.—As a rule, such wounds do well if carefully washed off once or twice a day with a solution of creolin, using one part of the drug to 1,000 parts of clean water. The lime makes a pretty good agent but is too strong when used full strength. Take air slacked lime one part and boracic acid three parts and mix well together and dust over the surface two or three times a day.

853—LOW PER CENT FOALS—I have two imported Percherons and I have been in the business six years, and these barren mares are getting worse every year. Some bunches of mares don't bring one out of five and breed from one leap to five leaps each season. We horse men must have a change or make geldings out of these stallions, for in my locality this mare failure is getting too loud for us horse men, and I would like to know how to stop it. Please give me some good points.—Iowa Subscriber.

REPLY.—Read the American Breeder and study it. Keep your papers on file and when we tell you to do anything, do it. Don't read for past time. At the first opportunity attend a term of the Breeding School so you can get a good foundation upon which to work. There is absolutely no use in having this condition in your community. If you cannot improve this condition you ought to make geldings of those stallions and let somebody have the business that could improve it. There is something seriously wrong with you. Perhaps you have not realized just how much damage you have done in your community. Just as long as you make a natural service on all the diseased mares that come to your place, just that long will you decrease the per cent of foals in your vicinity. Conditions have changed during the last quarter of a century. A general cleaning up around your premises is the first thing to do. The next important thing is to refuse to make a natural service on diseased mares. If all of your customers were reading the American Breeder this change would be easily made for they would insist on it.

854—CASTRATING MULES — Can mules that have never been castrated be sold on the market?—South Dakota Subscriber.

REPLY.—They might be sold but they would be very objectionable as the purchaser would unquestionably have them castrated, consequently would naturally ask a reduction in the selling price. Better have this operation attended to at home.

855—NAVEL INFECTION—I had three colts bothered with navel infection. I had a veterinarian with them and two of them got well all right and the other one is stiff yet and still breaks over in its ankles. I gave it a white powder that the doctor gave me but it does not seem to get well very fast. Do you think that it will ever get well? I keep it in a good, warm barn at night. Some claim that it is the fault of the horse that the colts have navel ailment or rheumatism. Is it, or is it not?—Idaho Subscriber.

REPLY.—You must have a good veterinarian. Neary all colts die when they have well developed cases of navel infection. If they do not die they are usually of little value. Disease germs get into the navel cord and cause this disease. If you will read the article in March 5th issue thoroughly, entitled "Prevention of Navel Disease," all these things will be explained to you. The proper thing for you to do is to buy a few cans of havel powder and loan them out to your customers, and especially to those customers which have this trouble with their colts. It will make you money, as it will be appreciated by your customers. Navel Powders can be purchased at this office at 50 cents a can or $5 for a dozen cans.

856—BARREN MARES—I have been keeping from one to five mares on my place for four years and have not been able to get but one mare with foal. My horses are about like the average farm horses of this country, and are always in good flesh for work mares, and seem to be in good health. I have taken a great deal of pains with them, taking them to the best horses in my neighborhood, but with the same results every year. I would like to know if water that is strong with iron would have any affect on getting mares with foal, as the water is the only thing I can account for the trouble. These mares come in heat regularly and have been said by horse men to be in good health.—Kansas Subscriber.

REPLY.—Nothing short of a careful examination by one versed in the causes of sterility is going to disclose why your mares do not conceive. We see no reason why the iron should affect them, but this might be better determined if other mares partaking of similar water also fail to breed.



Our First Prize Percheron Group (All Two-Year-Olds) At Nebraska State Fair.

We Announce the Arrival of Our

NEW IMPORTATION OF PERCHERON and BELGIAN STALLIONS and MARES

We are showing without doubt the best lot of imported Stallions and Mares we ever owned, which together with our American-breds makes a grand lot for you to select from. We invite inspection.

WOLF BROTHERS

ALBION, Boone County, NEBRASKA

Geo. W. Souers & Sons

Horse Importers

¶ *Stallions imported direct from Europe,* will be sold so the average stallion owner can afford to own one of them. *Ready for Service* and will *pass inspection.* Those needing a horse to meet the increased demands of the coming breeding season, would do well to see the stallions that can be found in the barns of

Geo. W. Souers & Sons

Huntington, Ind.

Homewood Stock Farm

We have just purchased from Ed Harper of Onarga, Ill., his entire herd o Percherons consisting of weanling fillies and stud colts, yearling and 2-year-ol fillies; some extra good imported and American bred mares, and the mother an sister of the champion American bred stallion at the 1909 International. Thi stock has the very best breeding, size and quality. Mares are all safe in foa and weigh 2,200 pounds. Everything will be priced to sell quickly.

This herd, with our other imported and American bred Percheron stallion and mares, gives our patrons over 60 head to select from. Come and see us. N one can show you a better lot of horses and mares than we can, and remembe no one can undersell us.

We have also a few choice Belgian and Shire stallions and a choice pair o 3-year-old Belgian mares weighing 3,800 in foal.

Homewood is conveniently located 23 miles south of Chicago on I. C. and Bi Four railroads. Suburban trains to and from the city hourly. Bell Phone, Home wood 58W.

S. METZ & SONS, HOMEWOOD, ILL.

300 PERCHERONS

We have 50 suckers, both sexes; 100 yearlings, both sexes—Imported an Home Bred; 150 matured stallions and mares, from Two to Six Years.

We have the best mares and fillies we ever owned or ever saw. Our yearlin stallions are of heavy bone and extra good quality. Our 2-year-old and mature stallions are not excelled by any barn in the United States. Our mares are bre to our best $3,000 stallions, Honorable and Jalape.

We have been in the horse business 39 years. Stock just as represented o we pay your expenses to look at them.

SINGMASTER & SONS, Keota, Iowa

Branch Barn Sioux City, Ia. **SINGMASTER & WALKER.**

April 22 I Sell

The following stallions and mares at auction:

1 registered Percheron stallion; coming four; dark gray; 1800 lbs. in breeding flesh; a good and sure breeder.

1 registered Percheron stallion; coming two; brown; 1400 lbs.

1 registered Percheron stallion; coming two; black; 1350 lbs.

1 registered Belgian stallion; coming two; bay; 1440 lbs.

1 grade Percheron stallion (15-16); coming four; black; 1600 lbs., good and sure breeder.

2 Registered Percheron mares; coming 7 years old; both blacks and well matched and both heavy in foal; well broke; weight 3550 lbs.

10 high grade Percheron mares, fillies and colts—blacks and grays.

WM. R. HANKINS, Ravenna, Neb.

BY USING CAPSULES

last year I found I could make one of my two Percherons do more business than both together had been doing. For that reason

ONE STALLION IS FOR SALE.

He is good every way; 3 years old; 1800 pounds; iron gray; gentle; well broke; in good demand among mare owners here and sold for absolutely no fault.

If I had not found that my other young stallion could do the work of both he would not be for sale. This is a $1,000 horse, but because the season is close I am making the price $700.

F. P. FRIEDLINE, Rte. 1, Caney, Kans.

GOING TO QUIT BUSINESS.

Four big stallions and jacks. One imp. Black Percheron; 7 years old; extra heavy bone; straight legs; best of feet; weight 1900. Tried breeder; colts to show. One grade black Percheron.

Two big registered black Mammoth jacks with white points; 15½ hands high, standard; extra large head and ear; heavy bone; straight legs; big feet; good workers on mares or jennets. Plenty of colts to show.

B. H. BAGLEY, Zenith, Stafford County, Kans. (On Kinsley branch Santa Fe, 33 miles west of Hutchinson, Kans.)

PERCHERONS, BELGIANS AND GERMAN COACH MARES AND STALLIONS

of all ages for sale. I have recently taken over the entire stock of horses formerly owned by the firm of Ives & Bellman and can furnish patrons with first-class breeding stock of the foregoing breeds. Have a fine lot of 2 year old and older stallions to select from. Address,

WILL BELLMAN, R. 1., Delavan, Wis.



FIFTY STALLIONS AND MARES.

$250 to $1000 Each.

Write for my illustrated **Circular telling why I can save you money** on the purchase of Percheron or Belgian stallion or mare.

A. W. GREEN, Middlefield, Ohio.

R. R. Sta., E. Orwell, on Penna. Ry., between Ashtabula and Warren.

I. C. EVANS, Troy, Iowa

IMPORTED AND AMERICAN BRED PERCHERON STALLIONS AND

mares for sale at right prices. Recorded in Percheron Society of America. If in need of a good stallion or mare, you had better get busy, and buy of me. I will guarantee square dealing with the right kind of stallions and mares to satisfy you, with quality and weight.



FISHER & WALKER
Importers and Breeders of
PERCHERON HORSES
and dealers in Standard Bred Horses, Tennessee and Kentucky Jacks.

Main barn, 1215 E. Missouri St., Evansville, Ind. Branch barn, Staunton, Va.

All stock guaranteed and priced right and terms to suit customer.
References, Banker's National Bank.

BREEDING STOCK

For sale. Pure bred Percheron stallion, Marvin 54190; Standard bred stallion, King Barada C. 223; Mammoth jack, Carlso 20336.

Will sell the above stock under guarantee at a very low price if taken at once. Write me about these at once.

JOHN WEAVER, Moriah, Ill.

857—CAPSULING MARE BRED—Is it necessary to capsule the mare from which the semen has been taken with extractor from the uterus?—Missouri Subscriber.

REPLY.—If the semen is taken from the uterus it is not necessary to put a capsule back into the mare upon which the natural service was made. If the semen is caught in a bowl or taken from the vagina it is necessary to insert a capsule.

858—LAME MARE—I have a work mare that went lame two years ago last summer. She had the coronary band hurt when she was a colt, but it did not hurt her any at the time. She was running out at the time she went lame. There is a ridge down the front of her foot. In the winter when the ground is frozen she gets over her lameness and in the spring and summer when the ground is soft she gets lame again. What would you advise doing for her?—Montana Subscriber.

REPLY.—You should employ a good veterinarian to look arter this case for you for the reason that there is some doubt just where she is lame, and you cannot make any progress treating her until this point is determined. The old injury may not be the place involved at all.

859—A DISCOURAGED BREEDER—I have been in the breeding business for 30 years and have bred all the time with the natural service and would like for some one to tell me why so many mares are barren now to what there was 25 years ago. So many lose their colts in one way and another, it makes it mighty hard on the stock man that insures living colt, which I have to do because everybody in my country does that way. The man who stands a good horse or jack for $10 and insures a living colt, sure needs a pension if anybody does.—Kentucky Subscriber.

REPLY. — The machinery is heavier, the mares are required to perform more strenuous work and the barns are built with practically no ventilation which causes them to be more susceptible to infection. It is up to the breeders to study the business more carefully. Some of those who have been in the business the longest have learned the least. The breeding business must be handled in a scientific manner in order to get the best results.

860 — RETAINED AFTERBIRTH — How long ought a mare to retain the afterbirth before taking it? Is it good practice to irrigate a mare after foaling to keep down inward fever? If so, what is the best solution to use?—Nebraska Subscriber.

REPLY.— An afterbirth should in the most of the cases be removed from mares by a competent man at the expiration of 24 hours provided it has been a normal labor. In the event it appears to be firmly attached at that time it may be left longer provided a careful flushing is made with sterilized water. No irrigation should be given following parturition except in special cases requiring the same.

861—TWO YEAR OLD SERVICES—I have a registered colt coming two years old in May. Could he be used this season would it be better to wait until next season? He is a good colt for his age. Would one service a week hurt his usefulness?—Kansas Subscriber.

REPLY.—When the weather gets warm and the mares are all in good condition being accustomed to their work, and have had a little grass, you can begin using this colt on six or eight services, no two services closer than ten days. Do not use him to tease with. Do not keep him in the barn where he can see or smell mares which are in heat. After a mare has been teased by another stallion and found to be in heat, and a service is expected to be made with this stallion, you might break him to tease this mare just a little so he will know how to tease, otherwise he might want to make a service on every horse or mare he would meet in the road. A little education along this line is in order. The habit of masturbation is easily formed. This is the reason we discourage using a young stallion as a teaser.

862—HOOKS—I have a jack colt that has the hooks in both eyes. What can be done to cure him?—Missouri Subscriber.

REPLY.—There isn't any such thing. Leave them alone.

863—CHANGING FROM JACK TO STALLION—We have a team of mares that have been raising mule colts now for three years straight and what I want to know is, would these mares get with foal as easy if bred to a stallion now as if they had been raising horse colts?—South Dakota Subscriber.

REPLY.—There will be no difference. Your mares should get in foal just as easily as if they had been raising colts from a stallion. Several inquiries came in the same mail from Illinois, Kansas and other states, asking for this same information. There is no reason that these reports should get started. A mule colt might be a little harder on the mare, but if she is properly fed and cared for there is





TRUMANS' CHAMPION STUD

The World's Greatest Collection of

SHIRE STALLIONS AND MARES **PERCHERON STALLIONS AND MARES**

BELGIANS AND SUFFOLKS TO SUIT THE MOST CRITICAL BUYERS

First 1914 importation of Shire, Percheron, Belgian and Suffolk stallions arrived Feby. 24. Thirty-five years in the business and not one dissatisfied customer. "Our prices are the lowest." Send for our handsomely illustrated catalogue. Imported Shire and Percheron mares for sale.

Special Prices for Next 30 Days.

Mention the American Breeder. Address,

TRUMANS' PIONEER STUD FARM

Bushnell, Illinois

THIRTY PERCHERONS AND BELGIANS



and one Shire. They range in age from 1 to 7 years; all sound and heavy boned; weighing from 1800 to 2,200 pounds. There are 17 stallions and 13 mares. I will also sell my herd stallion, Jupiter 65723, coming 5 years old; weight, 2200.

These stallions are all sold under a guarantee to be 60 per cent foal getters. I have four year olds that weigh 2200; 2 coming 3 that weigh 1800. Can sell a good ton stallion for $750; sound and right in every way; some a little higher, and some lower. I will sell at a bargain to early buyers. I have both imported and home bred stock. **PETER J. EGGERS. DENISON. IOWA.**

Percheron Mares and Stallions

Two coming two year old stallions; weight 1,650 each; two coming yearling stallions; three mares in foal to imported Percheron stallion, a ton horse. For prices, write,

E. N. IRISH, BLANDINSVILLE, ILL.

Home-Grown Stallions, Percherons, Shires and Belgians

Yearlings and two-year-olds. These colts are pasture raised; good bone and the rugged kind for the Western rancher.

Good young jacks; 3 to 5 years old; registered; 14½ to 15½ hands high, standard measure. Will sell at democratic prices the next 60 days.

HENRY BECK, LITCHFIELD, NEBR.

PERCHERONS

I now have on hand a very choice lot of good young stallions and mares of all ages that I am offering at bargain prices. Terms to suit. Will also furnish horses of all kinds on orders from one to car load lots. Barn in town.

A. R. IVES, Delavan, Wis.

Percheron Stallions

For sale. Six head, 2 to 4 years old; black; weight 1400 to 1950. Price $400 to $800. Call on or write to

S. L. PAYTON, Bedford, Iowa. Rte. 1.

PERCHERONS

For Sale. Imported and home-bred stallions and mares at prices that will sell them.

H. REDENIUS,
RUSHMORE, Nobles County, MINN.

PERCHERON STALLION

For sale. Dark iron gray; registered in Percheron Society of America; foaled September 1, 1911; weight 1950; will mature to 2200 pounds; heavy boned; sound. Will be sold at a bargain. Also Percheron mares from 2 to 11 years old. Write at once for complete description and price.

C. SATORIUS, Wynot, Cedar Co., Nebr.

Percherons and Belgians

Home raised Percheron and Belgian stallions for sale. One coming four years old; two coming two years old; one coming one year old. Three Percherons and one Belgian; good colors and size; will mature into ton horses.

W. R. HANKINS,

Ravenna, Buffalo County, Neb.

PERCHERONS.

Young Stallions—Brood Mares.

Stallions coming 2 to 4 years; mares all ages. A big, rugged, drafty, heavy boned lot, with plenty of quality and action. Blacks and greys. A large per cent sired by our herd horse, Superior 40605; weight 2300. Our horses are roughing it and are NOT overloaded with fat. JAMES LOONAN & SON, WATERLOO, IA. Farm 3 miles from Hudson; 8 miles from Waterloo.

IMPORTED AND HOME BRED STALLIONS AND MARES.

PERCHERONS, BELGIANS, SHIRES.

The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perche this year. See what we have before buying elsewhere. **Address Hart Bros., Osceola, Iowa.**

DELAWARE COUNTY, OHIO, PERCHERONS

For sale. Any one contemplating buying Percherons should not overlook Delaware County's products. There are over 300 pure bred Percherons owned in county. Stock always for sale. Send for circular and list of breeders to **O. H. Pollock, Sec'y., Delaware County Percheron Breeders' Association, Delaware, Ohio.**

Percherons

For sale. One imported, nine years old; weighs 1850; black. Two coming three; black and grey; weight 1850 and 1800. Will make a ton each. Buy them of the farmer and breeder.

CHAS. E. WARREN,
Sutherland, Iowa.

For Sale Immediately

One two year old Percheron stallion; one yearling Percheron stallion; one Mammoth jack and four jennets, cheap for immediate sale or would trade for cows or heifers.

J. W. BARBER,

Skidmore, Mo.

150 STALLIONS

Imported and home-bred stallions. I guarantee to sell you stallions for less money than any firm in America. Come to a Live Horse Market and see all draft breeds. Reference, any Bank in Creston. **A. Latimer Wilson, Creston, Iowa.**

PERCHERON STALLION WANTED.

I want a black Percheron stallion; registered; weight 1,600 to 1,800 pounds. The best answer to this ad, price and quality considered, I will go and see.

H. L. TODD, Derby, Vt.

ONE YOUNG PERCHERON

Stallion, by Imp. Ellan and out of a Brilliant bred dam. Will make a good big horse. I raised this stallion and can't use him, so will sell low.

J. H. McCULLOH,
Creighton, Cass County, Mo.

4 GOOD PERCHERON STALLIONS.

Two Are Imported; Two Home Bred.

And all ready for service. These are for sale at reasonable prices. I have also for sale several younger stallions and some imported and American bred mares and fillies, all good.

MANUEL CROSS, Adrian, Minn.

Pure Bred Percheron Mares

For sale; in foal to prize winning stallion; registered in P. S. A.

C. P. O'DONNELL, Winchester, Ill.

absolutely no difference. There is an occasional mare that will not get in foal to a jack, but there are not many of this kind. These reports are usually started by some one who is afraid that a jack will get all of the business. A man with no more principle than to start such a report ought not to have much business, and as soon as his customers find him out, he won't have much business.

864—LICE—What is the best thing to kill lice on jack colts?—Missouri Subscriber.

REPLY.—If the weather is warm remove the hair with clippers and on a bright warm day give the animals a bath in a one per cent creolin solution. Repeat the application in eight days in order to catch the lice that have hatched from the nits. Also clean up the barn.

865—STALLION FRETS FOR MATE—I have a Percheron horse which I brought here with me. I was crowded for stable room so put him in a stall with a mare. Now when I take the horse out and let him alone he frets so he gets wringing wet with sweat. He is a nice disposition horse and anybody can handle him. He is 14 years old and a good one. I would like to know what to do for him to make him quit his fretting.—Wyoming Subscriber.

REPLY.—Take this stallion to another stall and substitue another horse or a mare which is in foal. Every stallion or jack ought to have some kind of company or placed in an enclosure where they can see what is going on. If your stallion is broken to work he might be worked a few hours every day, if you work him yourself and work him carefully. We have never been very anxious to see good stallions worked by careless men. If you had a good big corral of an acre or two, fenced stallion tight, your horse would get along much better.

866—VACCINATING HOGS—I would like to ask a question about vaccinating hogs with the double treatment. I had 8 head vaccinated last October, and I commenced breeding in November and I find that only about half of the gilts are with pig. They all did well after they were vaccinated. Did not lose any. I breed about 50 sows every year and last year I did not have any trouble getting them with pig. Do you think the vaccination has anything to do about my gilts not getting with pig? I guarantee everything I sell and as my gilts were not in pig I had to refund one-fourth of the purchase price. I would like to hear from other breeders on this subject, as I ship a good many hogs out of this state and most states require the hogs to be vaccinated before shipping. One of my neighbor's hogs was taken sick and he called the veterinarian and he only vaccinated about half of his hogs and said that there was no use wasting the serum on them as they would die, but every hog that was vaccinated died, and those that were not vaccinated lived, so that man has no use for hog cholera serum. My neighbors think that the reason my gilts did not get in pig was because they were vaccinated. I was at a hog sale a few days ago and there several gilts weighing from 300 to 350 pounds run in the sale ring that had been re-bred and the owner said he did not know whether they were in pig or not, and they had been vaccinated last August.—Nebraska Subscriber.

REPLY.—While the simultaneous treatment may cause some systematic disturbance for a short time after its use, yet at the time you began breeding all such influences should have passed away. It is a matter of common observation that there are certain seasons when sows appear to be harder than usual to get in pig. While there may be certain climatic influences that are partly responsible, yet we find that frequently the proper feed has not been served in order to secure the best results in this direction.

867.—FOUR YEAR OLD SERVICES—Will you please tell me whether one mare a day is too much for a four year old? Will be four April 29.—Illinois Subscriber.

REPLY.—Five services a week, no two closer than 24 hours, should give you good results.

868.—FEEDING BARLEY—Will some one who has had experience in feeding barley to stallions held for breeding purposes tell whether it injures them as being sure foal getters.—Kansas Subscriber.

REPLY.—There is no grain that quite so exactly supplies the needs of the body as good, clean, wholesome oats. Particularly is this statement true in reference to work stock and growing animals. Oats may be made an exclusive grain ration with horses with good results. They are the very best grain that may be given a stallion. All other grains are more or less objectionable and should never be made an entire grain ration for stallions, and for that matter as far as practicable for other classes of the horse kind. Other grains such as barley, wheat, corn, kafir and so on may be used in moderation and should only enter into the rations of a stallion in small amounts.

869.—WORM—Please give me a remedy that will rid horses and colts of worms.—Kansas Subscriber.

REPLY.—Grass is so near at hand that we would advise that you give all stock affected a run on the same. The effect is to dislodge the worms and the physicing action soon clears the bowels of these pests. Salt mixed with sifted wood ashes, sulphate of iron, arsenic and santonin are all quite effective parasiticides.

870.—YARDAGE CHARGES DURING INSPECTION—I would like to know the yardage charges on stock destined to points in Canada, while being held at Kansas City for veterinary inspection.—Kansas Subscriber.

REPLY.—Horses have to be kept here three or four days undergoing inspection necessary for shipment to Canada. There is no charge for yardage but you have to buy feed of the Stock Yards Company. Corn is about $1.00 a bushel, hay about $20 a ton and other feed on the same basis. I presume if you will write the Bureau of Animal Industry, Live Stock Exchange, Kansas City, Mo., you can get any other particulars you wish.

871.—WATER SEED OR RUPTURE—What can be done for a colt that has a water seed or rupture on one side?—Kansas Subscriber.

REPLY.—Such a case will need the services of a well qualified veterinarian and if you secure the services of such a man he no doubt by means of an operation, will be able to relieve the condition complained of.

872.—PRESIDENT OF SHIRE HORSE ASSOCIATION—Please give me the name and address of the President of

TAYLOR & JONES

WILLIAMSVILLE, SANGAMON COUNTY, ILLINOIS,



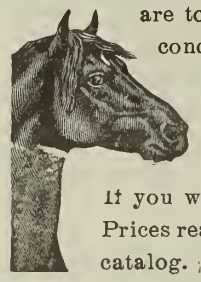
have for sale the **best** Imported and American-bred Percheron, Belgian and Shire Stallions at the **lowest prices** and with the **safest guarantee** of any firm in the business. Determine these facts by inspecton.

Send for illustrated catalog.

RESIDENCE AND BARNS IN TOWN.

Taylor & Jones, Box 160, Williamville, Sangamon County, Ill.

DUNHAMS PERCHERONS



are today, as for the past 50 years, the BEST, as shown conclusively at the fall fairs and International.

We now have at Oaklawn a most excellent and uniform lot of stallions and mares, having just recently received a LARGE NEW IMPORTATION.

If you want the best—stallions or mares—visit Oaklawn. Prices reasonable—guarantee the most liberal. Send for free catalog.

DUNHAMS WAYNE, DU PAGE COUNTY, ILLINOIS

PERCHERON STALLION

For sale. Imported 1911; age 3 past. Can show you he is a breeder. Price, $800. Will accept part or full value in matched pair or single drivers; well broke. Mention this paper.

AMOS HANSON, Collins, Ia.

2 PERCHERON STALLIONS.

Registered in P. S. A.; 2 years; over 1,600 lbs., each in growing condition; black and dark brown; clean boned; good actors. Priced low. Four miles south of town.

R. B. BRONAUGH, Pleasant Hill, Mo.

4 stallions, $1,200 if sold at once. 3 Percherons, recorded P. S. A.; blacks; sound; coming 3 years. One French draft; same age and color; sound. Price for all, $1,200, if taken immediately, or will sell choice. A bargain.

J. C. Stewart, Monmouth, Ill. R. R. 6.

PERCHERON AND BELGIAN.

Stallions. Can show the buyer one stallion or 50, $450 and up. Some weigh 2,100 pounds. For sale, part cash, balance, 1, 2, and 3 years at 6 per cent.

R. I. LITTLE, Route 2. FAIRFAX, IA.

REGISTERED PERCHERON STALLION

For sale. Black; 5 years old. Will sell cheap.

KIRK DAVIS, Langsville, Ohio

REGISTERED PERCHERON STALLION.

For sale. Champion 70919; gray coming four; weight 1800; sound; well limbed. Price $600.

G. H. BLUM, Cedar Falls, Iowa

PERCHERON STALLIONS, MARES AND FILLIES.

Imported and home bred, for sale at reasonable prices.

W. C. BAUGHMAN, Pulaski, Iowa

BELGIAN FILLY

For sale. Second prize at the International, 1913. Famous D'Or breeding; sound and all right.
GEO. S. PERKINS, Route 4, Peoria, Ill.

he Shire Horse Association.—Wyoming ubscriber.

REPLY.—John G. Truman, Bushell, Ill.

873.—JACK COLT KNUCKLES—lease tell me what to do for a jack olt that knuckles over on one front nkle. He is eight months old and 54 ches high. Has had the run of a lot day time and put in a box stall at ght. Have blistered him twice without doing any good. His sire and dam oth have well formed pastern joints. Nebraska Subscriber.

REPLY.—Much depends on conditions as to what may be done for this olt. If the colt when standing on ie legs causes the fetlock to assume ie same position as the other one, ien by applying a shoe that has a race extending up the back of the mb, the limb may be bandaged in a ay to keep it in proper position, and y giving it a daily rub with alcohol nd witch hazel, equal parts once a ay, may be strengthened so that it ill keep in normal position. If the etlock will not assume a normal posion when the weight is placed upon , then it is an indication that one or oth of the back tendons is contracted. In this case you will need the serces of a skilled surgeon. In either ent you need the help of a good eterinarian to aid in starting things ght for you.

874.—DUROC JERSEY RECORDS—ill you please tell me what the difrence is between the "American Dur- Jersey Swine Breeders' Association," th Robt. J. Evans, Secretary, Union ock Yards, Chicago, and the "Nation- Duroc Jersey Association," Peoria, ., with J. R. Pfander, Secretary. Do ey both record swine or is the Amerin Duroc Record only breeders?—uth Dakota Subscriber.

REPLY.—Both the associations entioned maintain records and each unts many important breeders aong its patronage. It would be betr, of course, in the case of this breed d all others, if the records could be nsolidated until there was only one cord (and that under government pervision) for each breed.

875.—ABORTION—I have a valuable re six years old that has aborted ee times and has never carried a t to its time. Is there anything I do for her?—Idaho Subscriber.

REPLY.—Anything that we might fer in this case would likely prove satisfactory. Such cases need the rsonal guidance of a skilled veterarian who can be in position to of- advice to all through the period of station.

876.—ASKS FOR AN ADDRESS—I v Mr. H. Kirchner's inquiry in your per and I am sending him a letter ough you, so if you know his address can forward it to him, if you please, d I will be greatly obliged.—Wyom- Subscriber.

REPLY. — The American Breeder, e most publications, has a rule ainst publishing the addresses of rrespondents. Hundreds of letters d contributions which come to us publication only, are rolled up toher soon after each issue goes to ess and destroyed. We do not file em alphabetically as we do all corspondence of record. It is well, perps, to explain why such a rule is enrced by nearly all large publications. we did furnish addresses and handle rsonal communications with parties o write us as Mr. Kirchner did, would keep a clerk busy all the ne and we would be giving this ser- e to a comparatively few, while ny thousands of subscribers equally titled to attention would be getting thing of the sort. It is the editor- policy of practically every paper to ve no time or attention whatever ecpting to such matters as are of erest to most of its readers. If u have some communications which ll be of as much general interests was Mr. Kirchner's inquiry we will glad to publish it in the paper, oviding it is not in the nature of vertising. That is the only way in which we can assist in communication among our subscribers. Those who wish to open direct communications can always use our advertising columns.

877.—STALLION EATS EARTH—Please tell me what ails a stallion when he wants to eat earth. I feed him good, clean hay, 19 pounds half oats and bran with one ounce of salt each day and two bundles of corn fodder. I drive him four to ten miles every other day. I let him run on a rope, but the first thing he will do when he comes out is to get his mouth full of dirt.—North Dakota Subscriber.

REPLY.—Animals when fed heavily on grain crave foreign material, which craving is usually satisfied by giving them alkalies. For instnace, sift clean wood or cob ashes and add to it one fourth part of salt and give a moderate amount daily until the animals appetite is satisfied, then keep the mixture before him in a little box where he can have constant access to it.

878.—THE SALINE SOLUTION—I have a mare that has a very large, open cervix. I bred her several times last season but she is not in foal. What would you do in that case? Some claim to use iodine. If so, how much and how often should I use it?—Missouri Subscriber.

REPLY.—Use the saline solution once a week for three weeks and breed this mare with a capsule two days after she goes out of heat.

879.—LAXATION OF THE PATELLA—I have a colt that slipped on ice and fell and his stifle slips out and then goes back with a little snap to it and is swollen some just below on the outside, and he has a little hitch sometimes.—Michigan Subscriber.

REPLY.—Apply some good blistering agent over the part and repeat in three weeks if necessary.

880.—MISSOURI STALLION LAW—I would like to know the Missouri stallion laws.—Missouri Subscriber.

REPLY.—Go before a Notary Public and run an attachment on the colt. The lien law is similar to the feed bill collection law. Your Notary Public has the law and can give you instruction as to proceedure.

881.—POISONOUS PLANTS.—I have been in the horse breeding business for the past 20 years. In February, 1913, I discovered a disease among my horses, also in February, 1914, I noticed the same disease among my horses. I lost a few both years. These horses act similar to horses with the loco. In place of them holding their heads down like locoed horses they hold their heads very high and act crazy and drink but very little water. They get very weak and all lose their colts. My horses that got over this disease in 1913 got fat in the summer; could not be noticed like a horse that had been locoed. These are range horses and have never been fed hay or grain. There are some sucking colts that take the disease and the mares don't and some of the mares may have it and the colts not. So I can't call this a contageous disease. Can you give me any cure for this disease?—New Mexico Subscriber.

REPLY.—It is very likely that your animals pick up some poisonous plant peculiar to your section which produces the train of symptoms mentioned. Inasmuch as you are dealing with range conditions you can at once see that it is difficult to avoid the cause of the trouble which is the correct way of dealing with these complaints. When animals become affected it is best to unload the bowels as soon as possible so as to limit the amount of poisonous material absorbed. Agents like raw linseed oil to which a little oil of turpentine has been added, makes a good purge provided the animal still retains its senses. A quart and one-half of raw oil may be given to which two ounces of oil of turpentine has been added.

882.—TWO YEAR OLD PERCHERON—I have a Percheron stallion colt that will be two years old May 8th. He weighs 1,700 pounds now. How many mares can I breed to him this year? He is a fine colt, dark gray. Would you use the capsule system with him? What kind of an impregnator would you use? I have not had much ex-

LA FAYETTE STOCK FARM

Largest Importers in America of Percheron and Belgian Stallions and Mares. Over 200 head on hand. When your locality has a horse from this great farm every one knows he is the right kind. Write us or come and see us.

We are also breeders of pure bred Hampshire Swine.

J. Crouch & Son, Props. La Fayette, Indiana



BELGIAN EMPORIUM OF AMERICA

Our March Stallion Importation Ready to Sell.
Spring Mare Importation Arrives April 15.



Largest collection of Belgian draft horses on earth. Also 20 choice Percheron stallions. The fall importation of 100 head, the second importation for 1913 swells the number on hand to 175 stallions, mares and colts. Many prize winners; many descendants of prize winners. All choice animals. We are farmers and stock breeders; twenty-eight years in the Belgian horse business. Each year adds to our strength, and now we can defy competition in quality, quantity and prices.

Four farms, all adjoining; 7 large barns.
Write for free illustrated catalogue.

H. LEFEBURE & SONS, Fairfax, Linn Co., Ia.
(Eight Miles from Cedar Rapids.)

Joseph Rousselle & Sons, Seward, Nebraska

PERCHERON, BELGIAN AND SHIRE STALLIONS AND MARES

We make a specialty of good, big, rugged type and action. Our two year olds weigh from 1800 to 1900; age horses from 1850 to 2260. In fact, we can show about as big horses as are living. We were in Europe early, which enabled us to get the right kind. We are natives of France and save in buying, also in selling to customers. Prices from $900 to $1,250; a few tops a little higher; home-bred come cheaper. Will furnish a state license according to the Nebraska law. Our guarantee and terms are right. Write, or better, come and see us. Seward is 26 miles west of Lincoln. Farm joins city on the north.

IMPORTED DRAFT STALLIONS FOR SALE.

Four extra good Belgians; ages 6 to 7; average weight 2,300. One good French draft; 4 years old; weight 2,000. This is an extra good one. These have been used in our stud since imported, and we have many fine colts their gets, to show, as well as a large number of mares in foal, proving them splendid sires.

We are making a change in our business operations, and will offer these stallions, quality considered, at remarkable prices. If interested write or come and see them. Our barns are but a mile from the station, where we will meet you.

We make a specialty of buying stallions or pure bred mares on orders. If your community is in need of a good draft stallion we want to hear from you. All records are complete on each horse.

R. J. CRAWFORD & SON, MILES, IOWA. PHONE 163, MILES.
We Write Life Insurance on Horses.

IRVINEDALE FARMS

Belgian and Percheron Stallions and Mares. High Class Animals Always on Hands.

Farm at Ankeny, 10 miles north of Des Moines on C. & N. W. R. R. and Ft. Dodge, D. M. & Southern Interurban. Will meet trains if notified.

CHAS. IRVINE, ANKENY, IOWA.

Imported Belgian Stallion

For sale. Not being able to handle the business I will sell my fine ton Belgian stallion at a sacrifice. He is a sure breeder; easy to handle and of fine quality and disposition. Color bay. Parties will be met at the train.

E. D. CHENEY, Hillsdale, Mich. Rte. 4.

--BELGIANS--

A carload of imported and home bred Belgian stallions and mares; all ages. Matured horses weigh from 1800 to 2200; with plenty of bone and quality, at prices to sell.

ED BOLL, JR., Scribner, Neb., Rte. 5.

BELGIAN, SHIRE AND PERCHERON STALLIONS

and mares, also Standard bred stallions and mares, $200 and up. **E. P. Hamilton & Sons, Garden Grove, Ia.** (Mention this paper). 23 miles S. W. of Chariton, Ia., 82 miles south of Des Moines, Ia., at Leroy.



PETER HOPLEY & SON

are offering a grand lot of matured, imported Shire, Percheron and Belgian stalllions, 3 to 5 years old; weighing from 1900 to 2300. ¶A few American bred horses, 2 and 3 years old; weighing from 1700 to 2000. In order to make quick sales, we are offering these horses from $400 to $1200, at our stables only. We give 60 per cent breeding guarantee, and $500,000 stands back of it. Every Horse Sound, and Sold with a State Certificate.

ATLANTIC OR LEWIS, IOWA

7 SHIRE AND PERCHERON STALLIONS.

Sire and dam of Shires, imported by Trumans' Pioneer Stud Farm; dam bred by Thomas Gee of the famous Wrydelands Stud Farm of Thorney England. Prices $250 to $650. Will meet train at Wakefield if notified in time.

James Auld, Wakefield, Clay Co., Kans. Route 1.

CLYDESDALE HORSES

Stallions and mares of all ages for sale.

Also Shorthorn Cattle.

W. A. DeMerritt

Route 2, Plainfield, Ill.

perience with a stallion. This colt weighed 1,170 at 12 months old. How big a horse is he likely to be? His dam weighed 1,980 pounds and his sire 2,170.—South Dakota Subscriber.

REPLY.—You can make a few services with this colt and breed a good number of mares with capsules. Such a colt ought to be in great demand. You can perhaps arrange for your neighbors all to be there at one time so as to breed all present at one service. This should make a good sized horse from the weight you have given of his ancestors. He probably has not been pushed as much as he could have been according to the weight you have given. He will probably develop into a ton horse if properly handled.

883.—GUERNSEY CATTLE—I want to ask your opinion of the Guernsey cattle. Are they good, heavy, rich milkers? And will they rustle for a living in the summer? I have a dairy ranch and have graded Shorthorns but I don't think they are profitable. I want to start with some extra good thoroughbred cows. If I only keep half as many I can give them extra care. Do you know of any reliable person in Colorado that has Guernsey cattle?—Colorado Subscriber.

REPLY.—Guernseys are much like Jerseys, the two breeds coming from neighboring islands in the English Channel, where dairying has long been the chief industry. Gurnseys run slightly larger and it is claimed for them that they give more milk. The breed enjoys a growing popularity, but as is the case with most breeds the difference between the two breeds is not likely to be any greater than the difference between individuals within either breed. We do not like to recommend any good cow as a "rustler." No valuable animal should have to "rustle"—in the commonly accepted meaning of the term. Guernseys, however, are probably as hardy as any heavy milker, unless possibly it is the Ayrshire. We will be glad to hear from any readers who have Guernseys.

884.—CAPSULE BREEDING—I am going to stand a Percheron stallion and would like to know what breeding appliances I will need so that when I come to a place where two or more mares are in heat I could let the horse serve one and then capsule the others. —Iowa Subscriber.

REPLY.—You will need an extractor, a thermometer and a box of capsules, and some arrangement must be supplied for keeping the water at the right temperature. You will see full instructions for capsule breeding in this issue.

885.—LOCO—Does eating loco render a mare unproductive?—Subscriber.

REPLY.—So much depends on how badly the animal is deranged. Any animal that becomes diseased in any way, particularly if the nervous system is imparied, will be inclined to lose its productive power.

886—NEW MEXICO LIEN LAW—Would like to know the New Mexico stallion laws and where copy can be obtained.—New Mexico Subscriber.

REPLY.—We do not think there is a law covering this case in New Mexico. If there is such a law, will be glad to have some of our readers send us a copy of it.

887.—BARREN MARES—I have several mares that don't have colts. They run around the barn in search of the stallions and when they are bred they go away for two or three days and then they are back again. Will you give me some information as to how to do when they are not in heat and how to handle the stallion so they will get in foal. Also how many services the stallion should make on each mare in order to breed them and keep them away from the barn.—New Mexico Subscriber.

REPLY.—Your inquiry is of too indefinite nature to admit of a satisfactory answer. In order to answer you with any degree of intelligence we would first have to know the status of your stallion as a breder. First, has he been a reasonably sure foal getter in the past? Second, is he being kept under conditions that you have a right to expect him to continue reasonably sure? Your question as to how many services are needed on each mare in order to get her in foal rather indicates that you

(Continued on page 21.)

WORK MULES AVERAGED $212.

In a public sale held recently at Columbia, Mo. (the seat of the state agricultural college), 16 head of mules are reported to have brought $3,400. Most of these mules were sold in the rough and if properly fitted would have brought considerably more. One old crippled mule in the bunch brought $100; one gray mule sold for $235; the highest priced pair brought $485 and another pair brought $447. These prices may be said to represent the value of an average bunch of heavy work mules in Missouri.

FORTY-ONE CAVALRY HORSES BURNED.

A fire which started in the barns of the United States Mounted Army Service school at Fort Riley, Kas., destroyed 41 cavalry horses. The horses were considerably more valuable than the average cavalry mount, as most of them were being schooled for jumpers and some of them had been used in the International Military contest at Madison Square Garden Horse Show in New York. Among the horses rescued from the fire was one thoroughbred stallion, Vestibule, which had been presented to the Mounted Service school by August Belmont.

DRAFT GELDINGS AT $325 PER HEAD.

Porter C. Taylor of Montgomery County, Mo., recently sold 14 head of heavy horses for $4,550, according to an item in the Montgomery (Missouri) Standard. The horses sold by Mr. Taylor averaged almost 1,700 pounds in weight and were in fine condition, two things very essential to one expecting to average $325 a head for work stock, as Mr. Taylor did. The horses were all geldings four to eight years old.

A COUNTRY OF CHEAP FEED.

To the American Breeder: This part of the country is an ideal horse and cattle country. Plenty of open free range; also forest reserve, summer range, small fee for private location drift fences, etc., on the reserve, miles of open range and water and thirty miles from sheep line. Heavy horses and cattle need feeding through the winter but the lighter horses rustle the year round. Heavy horses do better on the open range than in enclosures from April to December. I have horses in sight of the feed yard, gates all open, that prefer the hill feed and have been out all winter. Plenty of hay, only five dollars per ton. R. E. Clark, Fremont County, Wyoming.

Stallion and Five Jacks

For Sale—Twillmo, 2:17¾, sire of Marion Mills, 2:10¼. Big, handsome bay stallion at a very low price.

Five young jacks, from 2 to 8 years old; all broke and right in every way. One an extra good 4 year old. Price from $100 to $400. Read this ad the second time.

J. M. PRICE

VANDALIA, MO.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address

J. C. HUCKSTEP, Eolia, Pike County, Mo.

TWO YOUNG JACKS

For trade. One coming 3 years old, one coming two years old. Will consider trade for Percheron stallion of about 1400 to 1600 pounds, or herd of registered Aberdeen Angus cattle or herd of registered Jerseys. Tell what you have in first letter, also price. Jacks are black with white points, and nice ones. Address.

UZ CLIPPARD, Oak Ridge, Cape Girardeau County, Mo.

JACKS.



20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.

Phil Walker, Moline, Elk County, Kas.

THE OLD RICHMOND JACK FARM.

I make a specialty of breeding big registered jacks, with lots of bone, substance and finish. These jacks are raised right and all good servers. I also have at all times imported and American bred Percheron stallions. Prices right. Terms to suit.

I have some extra good, improved farms for sale. Write for prices and terms.

W. H. SKIBINSKI, Richview, Ill.

JACKS FOR SALE.

Seven first-class jacks; ages one to six. Bred right; raised right. Priced to sell. Colts to show. Mares in foal for those of proper age. Also some good jennets; ages one to seven.

L. W. Garriott, Austin, Scott Co., Ind.

14 GOOD BREEDING JACKS.

Also imported Percheron and Belgian stallions; some weigh 2160 pounds. Stock for sale on long time payments, 1, 2 and 3 years at 6 per cent.

R. I. LITTLE, Route 2. FAIRFAX, IA

Fine Kentucky Jacks For Sale



Will be in Hiawatha, Kas., about March 6th with a car load of fine Kentucky jacks for sale privately. Anyone wanting a jack call and see our stock.

Also have 40 head of jacks and jennets at our home, **Poplar Plains, Ky.,** for sale privately. Ages from one to four years. **SAUNDERS & HAGGARD.**

EXTRA GOOD JACK

For Sale. Coming 4 years old; 15¾ hands standard; weight around 1,100 pounds; black, with white points, nicely marked. Sired by Missouri King that sold for $2,000. Good enough to head anybody's herd of jennets. Come and see a good one; if you don't find him strictly good I will pay your expenses.

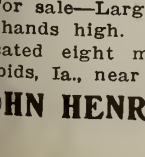
E. COLLINS, BELLEVILLE, KANS.

BLACK MAMMOTH JACK

For Sale. Coming 4 years old; registered; 15 hands standard; 16 jack measure; 32 inch ear; 10 inch bone; big set; will weigh over 1,000 pounds; good breeder. Will sell worth the money.

S. SMART, Harrisonville, Mo. R. 5.

JACKS



Kentucky Bluegrass bred and raised; the foundation of all other states. Old Honesty has the blood lines of all who have made success and fame in the jack business. Write your wants or come to my barn at Greendale. Electric line right at door. Stop 10.

S. C. NUNNELLEY,
Lexington, Ky. Ronte 6.

JACKS—GOOD ONES
For Sale Right.

One 7-year-old; three 3-year-olds, and five younger ones coming on, sired by Highball, highest priced 2-year-old ever sold at auction. All black with white points, all got by excellent sires and out of extra good jennets. We breed them ourselves and sell them right—19 big jennets in our herd.

M. LORIMER, Olathe, Kas.
(22 miles from K. C.)

LOOK HERE.

Eight head of large Mammoth jacks; eight head of large Mammoth jennets; all young and right in every respect. Jennets in foal by 1200 pound jack. One Percheron stallion, 3 years old, sired by Jack Ungot 11836; will make a horse that will weigh 2100 pounds. Will sell at a bargain or exchange for land within 100 miles of Kansas City.

W. SHOTT, Lathrop, Mo.
19 miles north of Kansas City (The Hollow Stock Farm).

KENTUCKY MAMMOTH JACKS.



We will cut the prices from $100 to $250 on every jack in our barns for the next 30 days. Special prices on Percheron stallions, mares and saddle horses. If you want a bargain, come to our barns and write or wire us when to expect you.

COOK & BROWN, Lexington, Ky.

"WE HAVE WHAT WE ADVERTISE"
For Sale.



25 head of big mammoth jacks; 3 to 6 years old; 14½ to 16 hands. Big bone, heads. The right kind. Also some draft and saddle stallions. All priced to sell.

CLAYTON GUSTIN, Edgerton, Mo.

LEAVENWORTH COUNTY JACK FARM.

Established 1882. 25 head of Mammoth jacks and jennets. Write for prices.

PERSON BROS., Potter, Kansas.
On Santa Fe Ry.

MAMMOTH JACKS

For sale—Large, heavy boned, 15 to 16 hands high. Prices from $250 up. Located eight miles west of Cedar Rapids, Ia., near Fairfax.

JOHN HENRY, Fairfax, Ia.

ADVERTISING BRIEFS

J. H. McCulloh, Creighton, Mo., has a carload of Shorthorn bulls for sale, singly or any way to suit, at the right prices. He also has a Percheron stallion for sale cheap, as he cannot use him.

Geo. W. Souers & Sons, Huntington, Ind., have a new ad in this issue. Look it up.

Scherder Bros., Bowling Green, Mo., are advertising their grade Clydesdale stallion for sale at a reasonable price.

H. L. Todd, Derby, Vt., wants to buy a black Percheron stallion weighing from 1600 to 1800 pounds.

J. M. Price, Vandalia, Mo., is advertising a trotting stallion and five jacks for sale in this issue. He is pricing the jacks from $100 to $400.

R. B. Bronaugh, Pleasant Hill, Mo., has two Percheron stallions and some young jacks and jennets at reasonable prices. He has two ads in this issue.

O. T. Carr, Quitman, Mo., who has been advertising his stock for sale, as he is going to quit the business, has sold all his stock but one saddle stallion, which he is pricing at the low price of $250 for quick sale. Look up his ad.

S. R. Feil, Cleveland, Ohio, writes: "Most every farmer has come to realize the great importance of ridding his stock of the blood sucking stomach and intestinal worms before he turns his flocks and herds out to pasture. A little well directed effort at this season will not only kill and expel the worms in the old stock, but prevent the young animals from becoming infected, and destroy the eggs before they are dropped in the pasture fields. Right now is the time to fight these profit-eaters most effectively. You can do it easily and without a penny of risk if you will accept my generous offer to rid your stock of these worms or no pay. I will ship you a 60-day supply of Sal-vet—the great worm destroyer and live stock conditioner, and let you feed it and satisfy yourself that it will do all what I claim before you pay. No farmer can afford not to take advantage of this generous offer. All I now ask you to do is to fill out the coupon which appears at the bottom of my ad in this issue."

W. H. Richards, Emporia, Kans., who is one of the most careful and reliable importers of draft horses in the American Breeder territory, is making, as he always does, close prices on his three and four year old Percheron and Belgian stallions. These horses range in weight from 1800 to 2100 pounds and are firm of flesh and in fine condition. The writer has many times seen the stallions around Mr. Richards' importing establishment working regularly in the harness hauling good loads. It is worth something to the buyer to get horses which are thus kept in condition.

H. Lefebure & Sons of Fairfax, Iowa, importers and breeders of Belgian draft horses, announce the safe arrival of their March importation of Belgian stallions, bays, sorrels and roans. The empty stalls are all refilled, the selection is as good and as large as ever. Their spring importation of mares will arrive about April 12. They say: "During the past week we sold a 2200-lb. bay stallion to Max Machler of Gann Valley, S. D.; a 2400-lb. bay Belgian to a club of farmers at Spring Grove, Minn.; a ton bay Belgian to K. Hanson, New Auburn, Wis.; a choice roan to C. Lemler, Rice Lake, Wis., and a black Percheron to W. Schmidt of Rice Lake, Wis. We do not import any that will not be ton horses at maturity, and buyers are always pleased with the large and choice selection that they find here. The supply is never allowed to run low. Our railroad facilities are fine—an interurban car every hour from Cedar Rapids."

Taylor & Jones, Williamsville, Ill., write: "Within the last few days we have sold draft stallions to Mr. A. H. Jones of Michigan, B. F. Schafer of Hancock County, Illinois, and Wm. Richardson of McLean County, Illinois. All these gentlemen have been here before and bought. Mr. Jones now has his fourth horse from our barn, Mr. Richardson has his third horse from here and Mr. Schafer has his second one. It has also been our good pleasure to sell to the South Carolina Agricultural College a very fine, imported coming 3-year old Percheron stallion that we have every reason to believe will more than please them. This horse is an extra good individual, splendidly bred, and Prof. Shields, who came to select him, made no mistake when he settled on this colt. We are selling horses every day and we still have a nice lot for sale at very low prices."

Amos Hanson, Collins, Iowa, has an imported Percheron stallion for sale at $800, or he will take a matched pair or single drivers as part or full pay.

The Stover Mfg. Co., of Freeport, Ill., who build the original double-geared Samson Windmill, have been advertising for the past few years, "Let the wind pump your water for nothing," and they report that this seems to have good effect, because their windmill sales have been constantly increasing and last year's business showed a marked increase over the previous year. During recent years many farmers have gone back on their old friend, the windmill, and have been using gasoline engines for the purpose of pumping water. While the gasoline engine is a most satisfactory adjunct to a farm and cannot be replaced at this time as a handy power especially adapted for operating churns, cream separators, feed mills, wood saws and many other machines, it is nevertheless a fact that a good, reliable windmill will pump water day and night, year in and year out, and by storing it in a tank of sufficient size, will supply water as needed. Windmills have been used for years and years and there are

MAMMOTH JACKS AND JENNETS.

Our specialty is herd headers. Have them as good as grow. 48 years a breeding stable, have succeeded because we use the best that money will buy. Satisfaction guaranteed.

G. M. SCOTT,
Rea, Andrew County, R. F. D. 2, Mo.



JACKS.

The kind all are looking for; large boned, black Mammoth Tennessee and Kentucky jacks; 2 to 6 years old; guaranteed and priced to sell; all broken and prompt servers. Reference, banks of Lawrence, 40 miles west of Kansas City, on U. P. and Santa Fe.

AL. E. SMITH, Lawrence, Kans.

40--Big Black Jacks and Jennets--40



Come to one of the oldest jack farms in Missouri. I make a specialty of breeding the big kind; extra big bone; big bodies. My barns are full of big young ones from 2 to 6 years old; 15 to 16½ hands.

ED BOEN, LAWSON, MO.

(Lawson is located 38 miles northeast of Kansas City on the C., M. & St. P. Ry., also 40 miles southeast of St. Joseph on A., T. & S. F. Ry.)

30 Head of Jacks For Sale

From Two of the Best Herds in the State of Kansa

From 14 to 16 hands high; 2 to 6 years old. Nicely broken and good workers. Good serviceable jacks and prize winners. We won more premiums at Hutchinson State Fair last year than all other exhibitors combined. Everything guaranteed as represented. Write us your wants, or visit our farms.

H. T. HINEMAN & SONS, Dighton, Kas. D. J. HUTCHINS, Sterling, Kas.

JACKS, JENNETS, PERCHERON MARES

We wish to announce to prospective buyers that we have 23 head of jacks—the good kind—raised on the farm, ready for sale this spring. This is strictly a breeding farm, no brokerage; 50 breeding jennets, headed by Paragon and Jumbo Mammoth, two great jacks.

Ten imported Percheron mares, headed by imported Kossuth, the best that money could buy in France; a span of coming two-year-old fillies; a coming two-year-old stud, will make a ton horse. The offering this year at reasonable prices.

OAKLAND STOCK FARM, BOX 207, CHILLICOTHE, MISSOURI.



SIX REGISTERED JACKS

From coming three years to five years. Two of these are sons of Dr. McCord 1766, and two of them are sons of Dr. Long 1767; all blacks with white points; 14½ to 15½ standard; big bone; wide and blocky; one of them good enough to head any herd. Farm one-half mile from station. Prices cheap. No sale on Sunday.

DILLINGHAM & DEWITT, Blue Springs, Mo.
On C. & A. R. R., 20 miles out of Kansas City.

Home of The Giants



One of our Crack 2 year olds; the Kind we Raise and Sell.

We still have for sale Five or Six of the Best "Ready-to-Use" Jacks we have ever owned. Plenty of young stock. We breed the Big Stout Heavy Boned Big Footed Kind and our neighbors, whose Jacks we handle, breed the same.

BRADLEY BROS., Warrensburg, Mo.
65 miles east of Kansas City, on main line of Mo. Pacific Railway.

6 -JACKS--6
17-JENNETS-17

The jacks are three and four years old, and they and the jennets are all good stock. All black with mealy noses. I want to close them out this spring, and will make the prices right.
JOHN A. EDWARDS, Englewood, Kas.



300 HEAD of Colorado raised Jacks, Jennets, Mules and Brood Mares. All guaranteed. Prices right. **Lewis Swink & Son, Rocky Ford, Otero County, Colorado.**

8--MAMMOTHJACKS--8

For Sale—from 3 to 5 years old; 14¾ to 16¼ hands standard measure; good breeding; broke right. Also a few jennets. One black imported 7-year-old Percheron stallion. Priced to sell. Stock in town.
L. W. HOYT,
BARRY, Pike County, ILLINOIS.

$500 BUYS

A LARGE MOUNTAIN RAISED JACK.

I have four head of Wyoming raised jacks, from 2 to 6 years old. Bred and raised at an elevation of 7000 feet; 15 to 16 hands high; registered; pasture broke; also broke to serve at halter. Good breeders; mules to show. $500 buys your choice at my ranch.
W. H. THOMAS, Mountainview, Wyo.

JACKS FOR SALE.

We have 16 jacks for sale; all black with white points; lots of bone, size and quality; from 1 to 8 years old.
SCOTT & ABNEY.
Virden,
Macoupin County,
Illinois.



Jacks For Private Sale

In order to reduce my jack stock I will sell at very much reduced prices for the next 60 days. I raised most all of my jack stock and can sell them cheaper than the man that deals in them. My jacks are all black with white points; in ages from 2 to 6 years old; in sizes up to 15¾ hands.
U. G. SAUNDERS, Flemingsburg, Ky.



50 registered, b l g boned black jacks and jennets. Colts to 16 hands; big, stylish, good lookers; great mule jacks. **J. H. SMITH, KINGFISHER, OKLA.**

COMING 3 YEAR OLD JACK

For sale; 14¾ hands high; black with white points; fine head and ears, with plenty of body and bone and good feet. This jack is sound and right in every way.
F. A. WINTER, Republic, Mo.

Six Jacks---12 Jennets

For sale or trade for land in rain belt. Jacks from one to ten years old.
H. A. SCHWATKEN, Hammond, Kansas

Young Jacks

AND JENNETS FOR SALE.

Also two young Percheron stallions.
R. B. Bronaugh, Pleasant Hill, Mo.

no good reasons for discontinuing their use now. After the cost of first installation they call for very little expense and require hardly any attention.

H. Lefebure & Sons of Fairfax, Ia., write us that their new importation of Belgian stallions are all in the best of health. Not one that has caught cold enroute. Several of them weighed a ton the day after arriving, and that means 2,200 lbs., in a few weeks. There are 60 Belgian and Percheron stallions on hand at present. A fine collection from which to choose. Among our sales the past week was a 2,300-lb. bay Belgian, one with all the quality desired, to Mills Bros. at Webb, Ia. They purchased a 2,250-lb. roan of us a year ago; stallions of this kind are scarce in any country and the farmers of Webb and community are to be congratulated upon having men that have sufficient ambition to pay the price for stallions of this class.

F. M. Lorimer, Olathe, Kas., has some good young jacks for sale sired by Highball, at the right kind of prices.

W. W. Shott, Lathrop, Mo., is offering for sale eight jacks, eight jennets and one Percheron stallion. Read his advertisement which appears in this issue.

L. E. Tompkins, Palatine, Ill., wants a man to handle a stallion during April, May and June. He will pay a salary of $50 a month and board.

Owosso Ice & Fuel Co., Owosso, Mich., are in the market for work horses, weighing from 1400 to 1700 pounds and from four to seven years old. Read the ad.

W. J. Marvin, Oberlin, Kans., wants to trade 160 acres of land for stallion, jack, brood mares or fillies. He also has alfalfa seed for sale at farmers' prices.

Dillingham & Dewitt, Blue Springs, Mo., are advertising six registered jacks, from coming three to five years old for sale. Blue Springs is only 20 miles from Kansas City.

Wm. R. Hankins, Ravenna, Ark., will sell at auction, April 22, at his farm. three registered Percheron stallions, one registered Belgian stallion, one grade Percheron stallion, two registered Percheron mares, both in foal, and ten high grade Percheron mares, fillies and colts. Any one in the market would do well to look up the ad in this issue and send for full information.

F. M. Lorimer, Olathe, Kans., has four good trotting stallions advertised for sale in this issue. Olathe is only 22 miles from Kansas City.

The Spohn Medical Co., Goshen, Ind., writes that all animals are subject to great changes in normal functions of the body when moved from one part of the country to another. In other words, the system must adapt itself to the new climatic conditions. This is called shipping or acclimation fever. It is far more judicious to use preventive measures than to wait for the attack, then cure the disease. Sale stable distemper is identical, but in more intensified form, and nearly every animal going through any of the sale marts will suffer an attack of this disease. As a preventive, give all animals to be shipped one-half teaspoonful doses Spohn's once a day, two or three days before shipping, and continue until all danger is passed.

Fisher & Walker, Evansville, Ind. (branch barn at Staunton, Va.), are importers and breeders of Percherons and dealers in Standard bred horses and Tennessee and Kentucky jacks. Write them for prices if in the market.

R. E. Clark, Cora, Wyo., has a stock ranch all or part of 2,000 acres for sale and would be glad to give a full description to any of our readers who are interested in a proposition of this sort. Read the ad in this issue.

S. Metz & Sons, Homewood, Ill., have just purchased the entire herd of Percherons belonging to Ed Harper, Oranga, Ill., and are pricing this stock to sell quickly. They have a new advertisement in this issue.

Henry Beck, Litchfield, Ill., has home grown stallions, Percherons, Shires and Belgians for sale at all times, but for the next 60 days he is making prices that will sell them quickly.

E. D. Cheney, Hillsdale, Mich., is not able to handle his business and is offering his ton Belgian stallion for sale at a sacrifice price. Write him for price and description.

A BEGINNER'S TROUBLES.

To the American Breeder: I bought a Percheron stallion at a public sale. His pedigree was read and endorsed with the horse and when I got my health certificate they sent it as a grade horse. I wrote them and they sent me a "Year Book of Agriculture" and I see that the American Percheron registry and sixteen others are not considered as standard.

(1) Is there any way I can have him registered in the department of agriculture Why do they consider them of not pure breeding (2) Am I allowed to advertise my pedigree with my health certificate to show his breeding (3) Could I bring suit against the other fellow for damages for not having a health certificate tacked in the stall the day he was sold?

I have bred ten mares with him and he covered them all good with the exception of one, which he only half covered. I tried him back in an hour or so but he would have nothing to do with her. (4) I tried her next day and he would not look at her. I have been told since that she was "dirty." (5) How shall I clean her? (6) Has corn anything to do with making a horse not sure? Is a real heavy, fat horse as sure as one in fair flesh? (7) If a mare should come back in less than three weeks, is it right to breed her?—Iowa Subscriber.

Editor's Note: The writer of the above letter is one of our new subscribers in a good farming section of the Hawkeye state. He calls himself a "new beginner" and it occurred to us that he has mentioned a number of questions which might arise in the minds of other beginners. We have numbered each of his questions and will let the "Old Timers" put him right on any or all of them. Refer to the heading and the question number and make a separate article for each one you have time to discuss.

SUFFOLK STALLION AWARDS.

In the American Breeder Stallion Show for Mature Suffolk stallions, the judges awarded places as follows:

1st.—F. W. Oakie, Marshall, Va., on Ashmoor Luther 423—Entry Number 1.

2d.—G. A. Hamilton, Loveland, Col., on Henham Falstaff (3763)—Entry Number 4.

3d.—Chas. W. Stewart, West Chester, Ia., on Ashmoor Omar Khay Am 399 (3640)—Entry Number 2.

4th.—Knute Lewis, Lake Preston, S. D., on Westside Goldfinder 311—Entry Number 3.

The photographs, entry numbers and measurements of these horses were published in our issue of February 20.

The following comments and ratings of the prize winners have been received from readers of eight or ten states and Canada. A study of the photographs will show that some of the writers have done some close observing. With two exceptions every subscriber who wrote gave first position to either the first or second choice of the judges.

"I would rank these horses; entry No. 1, first; entry No. 2, second; entry No. 4, third; entry No. 3, fourth.

"In order to give a true judgment on the Suffolks classes, the scale of points as given by the "English Suffolk Society" of England, should have been published. Referring to the standard a Suffolk should range in height from 15.3 to 16.2 and the bone should not be large but flat showing quality. They allow 25 points out 100 for barrel and width front and behind. Some of the horses are 18 hands high in your photographs, this is too large, 16 hands is the best height for a Suffolk. The horse entry number one is the only Suffolk in the lot that shows barrel and width. He should be first. Suffolk Standard says "Deep, round ribbed from shoulders to flank with graceful outline in back loin and hind quarters." Number one is the only entry that has these points."—Dan Smith, Fauquier County, Virginia.

"I would rank these horses; entry No. 3, first; entry No. 4, second; entry No. 1, third; entry No. 2, fourth. Number three is in best proportion. Number four has too much height. Number one has not enough bone for body. If entry number four had the body of number one we would have some horse.

"I would have liked the weight as well, but suppose we can guess at that."—J. M. Williams, Alberta, Canada.

"I would rank these horses; entry No. 3, first; entry No. 4, second; entry No. 1, third; entry No. 2, fourth."—Frank N. Taylor, Ada County, Idaho.

"I place the Suffolk Stallions this way; entry No. 1, first; entry No. 2, second; entry No. 4, third; entry No. 3, fourth.

"There must be an error in the heart girth of number one, as no horse will come to 106 inches, 96 inches is already extraordinary. The canon bone of the same horse does not look to me as a 10¼-inch bone.

"Number two is not a very good photo to judge a horse on, and so is also number four. This number four horse is too tall to be good. With such size this horse should measure 96 inches girth.

"Number three is not a perfect type of draft horse. The arm bone is too straight. The horse is also too long in his middle piece, too long from the point of his shoulder to the point of his hip. The head is also too coarse.

"It seems to me that you should also have asked the knee girth. A stallion should measure in these parts at least 17½ inches."—Leon Van Meldert, Harrl County. Texas.

"I would rank these horses; entry N 1, first; entry No. 4, second; entry No. third; entry No. 2, fourth."—Rosco Brasel, Marion County, Illinois.

"I would rank these horses; entr No. 4, first; entry No. 3, second; entr No. 1, third; entry No. 2, fourth.

"I would like to know what thi breed springs from and if they are rea drafters."—W. E. Murray, Wright Coun ty, Minn.

"I would rank these horses; entr No. 1, first; entry No. 4, second; entr No. 3, third; entry No. 2, fourth."— P. H. Vories, Gallatin County, Ky.

"I would rank these horses; entr No. 4, first; entry No. 1, second; entr No. 2, third; entry No. 3, fourth."— A. M. Weidner, Platte County, Nebraska

"I think entry number four shoul have first place. Although his righ hock looks a little large, due to thorough pin or spavin, but may be du to a poor pose. Entry number three I believe is entitled to second place Entry number two third place and en try number one, fourth. Entry num ber one stands too straight on his hin posterns, has a poorly shaped head an is too thick through the throat."—El mer Rosser, Gregory County, S. D.

WANT STALLION AND JACK.

Brood mares or fillies, for 160 acres, six miles county seat; 50 acres alfalfa land; 36 acres winter wheat (one-half goes with place). House, windmill, fenced, some other improvements, shallow water, fine stock place. Price $20 per acre. All stock or part stock; part time. Alfalfa seed at farmers' prices.
W. J. MARVIN, Oberlin, Kans.

Work Horses Wanted

We want 10 good work horses for coal and ice wagons. Must weigh 1400 to 1700 pounds, but if the lighter weight, must be wirey and the pulling kind. We want good, up-headed stock that can stand trotting when necessary. Ages 4 to 7. Give full description and price in first letter.
Owosso Ice & Fuel Co., Owosso, Mich.

BREEDER WANTED.

I want a man to handle stallion for April, May and June. Give references. Pay, $50 a month and board.
L. E. TOMPKINS, Palatine, Ill.

BREEDER WANTED.

Graduate of the Scientific Breeding School with two years' experience preferred. State wages in first letter.
S. B. CLARK, NISBET, NO. DAK.

STEAM PLOW.

For sale or trade. 32 H. P. Reeves Traction Engine and four six-disc gangs; also Reeves Separator; in first class condition; practically new. Will trade for Western mares.
C. G. MILLAGE, HOLYOKE, COLO.

DAKOTA RANGE HORSES AND MARES

For sale. Plenty of bone and quality. Mares safe in foal. Most of these horses are Shire and Percheron crosses. Can match some nice teams.
H. L. BREKKE,
Lindsay, So. Dak.

Grade Clydesdale Stallion

For sale. Five years old; extra good individual; sure breeder and sound weighs 1,800 pounds in breeding condition, and has won a blue ribbon every time when shown. Will sell reasonably.
SCHERDER BROS.
Bowling Green, Mo. Route 3

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of The American Breeder, and keep them in shape for convenient reference at all times by using



This Binder, Sent, Postpaid for $1.00.

We guarantee satisfaction and want to hear from those who have received their binders.
Graham Pub. Co., 225 W. 12th St. Kansas City, Mo.

PSULE COLTS TOO INTELLI-GENT.

To the American Breeder: I have en your subscriber from the first ue. I will relate a little story about psule breeding," with the negroes our country. None of them had faith in "capsule breeding." There was a gray mare in our coun- that had been bred to everything y could find, but failed to get with t. She was only eight years old. k Thompson came to me and said, oss, I would buy that gray mare of ith if I thought you could foal her." aid, "never looked at her, bring her vn and let me look at her." He ught her down and I found her right, except she was the big open d. I bred her with capsules four s after her heat period, and she ught him a fine mule. Bred her in the next year and she brought ther good mule.

He was back last season but said didn't want any more capsule s. I said, "why Dink, what's the tter; aren't your colts the best in country?"

Yes, they are good enough, but y got too much sense. Why do you w, that oldest colt can open any e I got, and yesterday tried to go stairs.

But I bred the mare my way."

y breeding hour is 2 p. m. Last son in one day there were five es to be bred to the jack, all negro ers. I told them I would go and dinner and at two o'clock would d their mares. I left them debat- how I was going to serve all their es. I came with my breeding out- water, etc.

hree of the mares had colts at and the others were all O. K. ade the service and bred all the es, but one, which belonged to a o named Stewart. I said: "Hurry and bring your mare here." He : "Boss, I don't believe in that of business and won't breed that " I said: "Bring her on up and ne look at her again;" and I bred Told him she was bred and what to bring her back, but he left mad would not speak to me. I tried et him to speak but he sure was until about six weeks ago, when t him on the street and he said: s, I wish you would come out and at my mare." I went and found heavy with foal. She delivered ne mule last week and the negro : "Boss, I will never doubt what say again, but what got me is, that colt got there."

ave a two-year-old jack that meas- fifty-nine inches high, has the bone I ever saw, is out of a six- hand "Jinny," by a twelve hun- and fifty pound jack. This jack 't have any care until ninety days when I bought him. Can anyone me some idea how large a jack ill make?—T. W. Allinder, Faulk- County, Ark.

ONY AD; RESULTS SATIS-FACTORY.

the American Breeder: Please ntinue my pony ad and send bill. lts were very satisfactory.—Geo. impson, Dupage County, Ill

MERICAN BREEDER BRINGS THE BUYERS."

the American Breeder: Please enclosed check for ad in the rican Breeder, for which beg to k you very much. Have had the best of sales, having sold all of acks that are old enough for serv- Have a number of herd headers will be on the market for next —high class jacks. The American der brings the buyers from all of the country.—Jas. M. Spur- , Lewis County, Mo.

the American Breeder: Enclosed check for $13.50. Please stop our old out.—Wright Bros., Henry a.

QUESTIONS AND ANSWERS

(Continued from page 18.)

are not very familiar with the breeding business. If these mares are in good physical condition and do not conceive with a fair trial then something is wrong either with the stallion or with the mares. Each individual mare becomes a problem within itself as two barren mares are rarely just alike. An effort should first be made to determine the cause of the barrenness and then set to work to correct the same.

888.—OPENING A MARE—A. says to open a mare insert your whole hand in the mouth of the womb (os uteri). B. says two or three fingers are sufficient. Which is correct?—Oklahoma Subscriber.

REPLY.—Neither one is correct. Only one finger is necessary. Mares having colts by their sides are usually open so that two or three fingers may be inserted without injury. Dry mares are usually closed when in a healthy, natural condition. One finger can be inserted easily when a mare is in a satisfactory condition. It is not a good plan to try to make the opening too large as those membranes can be irritated. When extracting semen from a dry mare one finger should lay down flat on the point of the extractor so as not to stretch this opening.

889.—KNEE SPRUNG—I have a registered Percheron stallion 22 months old. He stands with his knees pitched forward a little. When he walks he sets his feet down flat and straightens his knees, but when standing they give forward as if they were a little weak. Will they get all right? Is there anything that can be done to help them? Is this a fault that will hurt his value much? And will he breed colts with the same kind of knees? Will light work help strengthen and straighten his knees?—Montana Subscriber.

REPLY.—Sprung knees are difficult to correct without an operation. The feet of such animals should be kept level and the horse permitted to take sufficient exercise to keep the legs strengthened. Light work such as you suggest would be in order, but no hard pulling should be permitted. Keep the animal in good, thrifty condition, moderate flesh and as he grows older he will very likely improve.

890.—SERVING WITH DISTEMPER—Will a horse discharge live spermatozoa when he has a mild case of distemper?—Oklahoma Subscriber.

REPLY.—A stallion is not liable to be a regular breeder while suffering with the so-called distemper, neither should a stallion ever make a service in this condition as it frequently impairs their future usefulness. A great many good sires have been ruined by being used at such a time.

891.—IMPACTION—How should impaction in the large intestines in a horse be treated? I have had several cases where one quart of linseed oil has been given as a drench, and warm water injection in the rectum. Our veterinarian has lost every case I know of. I would be very thankful for any advice you can give me.—New Mexico Subscriber.

REPLY.—We would judge from the manner of your inquiry that you were engaged more or less in the practice of veterinary science. We know nothing of the qualifications of your veterinarian alluded to, so have no knowledge of his ability or how favorably or unfavorably his losses compare with your own. These columns are for such of our sugscribers who do not have access to veterinary advice, and it is no way intended that we are conducting a correspondence school for men desiring to practice on the stock of their neighbors. Many of our readers are so situated that they are denied the services of qualified men. Whenever a competent man is available he should under all circumstances be employed, inasmuch as he is in a position to render a far more valuable service than we could ever hope to, situated as we are without opportunity to even examine the patient.

892.—EXTRACTING THE SEMEN—You mention the Natural Temperature Semen Extractor in your last paper Is it a better way to extract the semen than with the Carlson extractor?—Iowa Subscriber.

REPLY.—We believe the Natural Temperature Impregnator will give better results in getting the semen out of a mare than any other instrument.

893.—ABORTION—I had a registered Percheron mare give birth to twin colts on the 7th day of March, 1914, one horse colt and one mare colt. Both dead; they came about seven weeks ahead of time. The mare was stabled every night and fed plenty of good prairie hay. Ran out in a 40-acre field every day with two large oat straw stacks to run to. There was some flax straw in the bottom of oat straw stack which they had eaten into and were eating the flax straw for eight or ten days. Do you think the flax straw had

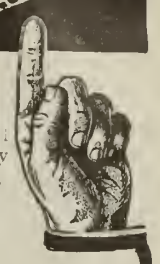
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Please send, free of cost, to the address below, Prof. Beery's Introductory Course in Horsemanship
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Refusing to lead.
Running away when halter or bridle is removed.
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Pawing while hitched.
Crowding in the stall.
Fighting halter or bridle.
Tender bitted.
Pulling on one rein.
Lugging on the bit.
Lunging and plunging.
Refusing to stand.
Refusing to back.
Shying. Balking.
Afraid of automobiles.
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Afraid of clothes on line.
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Afraid of the touch of shafts or harness.
Running away.
Kicking.
Biting. Striking.
Hard to shoe.
Bad to groom.
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Refusing to hold back while going down hill.
Scaring at hogs or dogs along the road.
Tail switchers.
Lolling the tongue.
Jumping fences
Bad to hitch to buggy or wagon.



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anything to do with mare throwing the colts? I had not been feeding oats for two and a half months until about two weeks before she aborted, then I gave her about two quarts of oats and some bran twice a day. The reason for not feeding oats I thought she was too fat. She was the largest animal around the abdomen I ever saw and she swelled under her belly from her udder to her breast for two months before having those colts and she ran out every day and was very careful, did not run or slip. She was a large mare, weighing over 2,000. Can you give me any idea as to what caused her to abort. Do you think eating flax straw had anything to do with it. These colts came one at noon on the day of the 7th and one on the morning of the 8th. I had other registered mares with foal in the same field and same conditions, excepting I fed them oats four quarts apiece twice a day.—Montana Subscriber.

REPLY.—It would be quite impossible to give you a definite opinion concerning the cause of the abortion in your mare, but we have heard of similar results attending feeding flax straw. Flax straw at the best is very poor feed on account of containing so much indigestible fibre. Whenever one departs very much from the recognized suitable rations there is pretty apt to be bad results follow.

894—NORMAN HORSES—I want to ask about the origin and type of the Norman breed of horses. I have never been satisfied about this breed of horses.—New Mexico Subscriber.

REPLY.—There is no breed of horses known as "Normans." During the early importation of draft horses to this country the Norman name was associated with draft horses from France. Less than half a century ago the name "Percheron" was applied to horses bred in the Percheron district. Ordinarily we might say that the Norman name has been considered by some as the Boulonnaise breed, which are bred in France.

895—LAMINITIS—Will you tell me what colt founder is like. and will they have it the next time?—Missouri Subscriber.

REPLY.—Laminitis of a temporary character often affects mares during advanced pregnancy and is inclined to disappear after foaling. Such mares should be sheltered from inclement weather but should be given opportunity to exercise whenever it is sufficiently pleasant to be out.

896—FEEDING A STALLION—I would like to have a little information as to how much grain to feed to a two year old Percheron stallion. I feed him one gallon of oats morning and night, and alfalfa hay three times a day. Some men tell me I am feeding him too much oats; that I ought not feed him more than half the amount of oats. I am growing this full blood Percheron stallion to sell. How much oats should I feed this colt and how many mares can I breed to him this spring? He will be two years old the 31st day of March, 1914. When is the best time to sell a stallion and at what age?—Kansas Subscriber.

REPLY.—Your ration might be improved by making a part of the roughness hay. You must judge from your own stallion as to the amount he should have. Watch the bowels. If a bad scent is noticed, you are feeding too much grain. If he leaves any feed the amount should be dimished. Watch his flesh and general condition. Every breeder must study the conditions surrounding each individual animal. If your colt is very fat, and you wish to increase his size, it might be just as well not to breed any mares to him this season, if all the parts are well formed and he shows plenty of masculinity. What you would gain in service fees might cause him to fret to the extent that he would not grow properly. This depends largely upon the disposition of the stallion. Some colts it does not interfere with while others get very nervous. Colts which are not properly developed in masculinity can be benefited by some use but it should be remembered that all young sires should be used very sparingly, as this is the time when they are easily injured. The best time to sell a stallion is when the other fellow wishes to give you your price. There is no specific time when a stallion should be sold. The market demand is better during the winter months but it should be during the fall.

897—SWELLING—What is the matter with my mare, she has a swelling from her navel up to her forelegs, about two to three inches wide; it is sore but has a dry scab. She is fat and has been fed well all winter. What can I do to cure it?—Oklahoma Subscriber.

REPLY.—You fail to state whether or not your mare is in foal, for it is well known that pregnancy is often a cause of such swellings as you mention. We are more inclined to think that the swelling is more the nature of such as are induced by lying on heating manure, inasmuch as the escaping ammonia will often scald the skin in the way recited.

898—TREATING A DISEASED MARE—I have a large mare about 12 years old which I thought was diseased as I have never been able to get her in foal. I washed her last season with the iodine solution six times, once with the soda solution and three times with the sterilized water, making ten times in all. At first her discharge had a bad smell and was whitish color with small clots about the size of a millet seed; these were yellowish or mattery looking, and on examining her with the speculum she looked inflamed. But at last washing she didn't appear to be inflamed and there didn't appear to be any odor to her discharge, hut she did not seem to clear up. The discharge looked bad so I did not try to breed her. I have owned this mare five years and think she was in this condition when I bought her as she hasn't raised a colt since about four years ago. What do you think this is and is there any use wasting time and medicine on her? She would weigh about 1500 pounds. If you can help me in any way would appreciate it.—South Dakota Subscriber.

REPLY.—Evidently you did not do a good job with the iodine treatment or this condition should have been cleared up. At any rate you did not follow our instructions last year. You have used entirely too much iodine; that is one of the difficulties in giving prescriptions. Too many men believe that if a small quantity of medicine will be a benefit, more medicine will be better in proportion. If this mare is not in a fit condition to breed, use the iodine treatment once at about 115 degrees. and in three or four weeks use the saline solution at about the same temperature, and in a week or ten days breed her with a capsule. We never did advise any one to use sterilized water. Water within itself will often cause an irritation.

899—BOG SPAVIN—Can bog spavin be cured? If so, hy what treatment or medicine?—Nebraska Subscriber.

REPLY.—Bog spavin may be cured, but it requires the skll of a well qualified veterinarian, inasmuch as the treatment necessitates withdrawing the fluid and injecting irritating liquids.

900—WATER SEEDS—Please advise me what causes water seeds and how to prevent them, as some of my mules have them every year after castrating. —Texas Subscriber.

REPLY.—Water seeds are usually caused by faulty castration. It is well in mules to remove quite a quantity of the inner tunics so as to give good drainage to the wound.

901—HEAVES—How about a light case of heaves with an eight year old mare? Can heaves be cured, and how, if there is any way to cure them?—Arkansas Subscriber.

REPLY.—Heaves. if not too far advanced, can be cured provided the owner will give the case the attention necessary. Such care relates to good, nutritious, easily digested food, free from all mould or coarse fibre. The legumes are not suitable for such cases (clovers). Upland prairie hay should be fed in the way of coarse provender by choice. and should be limited in amount. Clean, plump oats make the best grain ration. The animal should always be watered before feeding only. Do not permit the animal to fill up too much on any food. A run at grass is of benefit.

902—RESULTS OF NAVEL ILL—I have a mare colt coming two years old this spring that got navel ill when about two days old. We did not know anything about navel ill and did not do anything for her. When two weeks old she got the thoroughpin and when about ten months old she got the bog spavin. I blistered it, but did not seem to do any good; got worse if anything. I let it alone after that and now the enlargement has reduced down more than half. Do you think the bog spavin will disappear? If so, do you think it will appear again? This colt has never been lame. This same colt got a wart or tumor on her elbow. Could you please inform me how to remove it? I tried to tie it off but with no sucess, as it grows out.—Minnesota Subscriber.

REPLY.—Inasmuch as the enlargement is gradually reducing we do not believe it advisable to do anything with it at this time. The most successful treatment at this time is in the nature of an operation such as only a skilled veterinarian can successfully perform. It is quite likely by the time the animal reached a point where she is to be used for work that the enlargement will have reduced to a point where it will not amount to much. Inasmuch as the wart fails to disappear should have a good veterinaria remove it completely with the knife.

903—LEUCORRHOEA—I wish to as what I can do for an eight year o mare that lost her colt in 1912. (Ha colt by side at time.) I haven't bee able to get her in foal since. She ha quite a discharge at times which look like semen. I work her with my sta lion. Her legs are always coated wit that fluid. Please tell me what t do.—Colorado Subscriber.

REPLY.—Such an animal should b treated by your veterinarian provide





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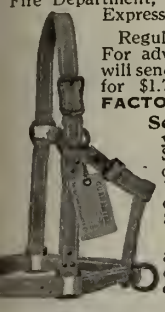


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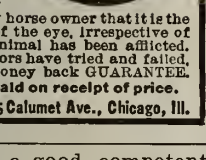
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—BREEDING QUESTION—Is one enough for 10 ewes if they run ther all the time?—Missouri Sub- er.

EPLY.—No, one to 50 would be h better, and even then he should be permitted to run with the flock the greater part of them has been . Keep him in a lot by himself re he may be given a little grain turn him with the flock for a t time during the day. In this way you will get more and better lambs.

905—INFECTIOUS ABORTION—What is the cause or various causes for cows slinking their calves? I bought a bunch of nice looking cows last November. They have been pretty well cared for this winter. They were fed the first of the winter on kafir corn roughage and after that on silage and cotton seed cake. They commenced losing calves in December, and from that time to the present, nine cows have lost their calves, varying from two to six weeks before they should have come. The cows look well and thrifty up to the time they lose their calves, but looked like some of them would die afterwards. They do not clean up well, carrying the afterbirth from six to nine days, also discharge a sort of mucous. Four or five cows out of the bunch (which were held back by the party from whom I bought), lost calves something like a year ago. Thought this might be the starting point of the present trouble, yet there were a few young calves when I bought them. There are about 50 head including those that have lost calves, besides those that had calves when I bought them. A partner of the man I bought the cows from has lost as high as six calves in a week, this winter. This trouble seems to be going through this country. Several have lost heavily. Any information will be gladly received.—Texas Subscriber.

REPLY.—Unquestionably you are having a costly experience with infectious abortion and it is a problem whether you are justified in going to the expense necessary to clean up this herd. From a financial standpoint it is usually better to permit these cows to fatten up on grass and send them to market. After this clean up the premises and make the start again. Remember that a bull may convey the disease to a healthy cow if he has been permitted to serve one previously that has aborted.

906.—AZOTURIA—I have a mare nine years old; weight 1,100 pounds in good flesh, and looks perfectly healthly, is driven nearly every day but if she stands in the stall for a day or so, when I start out and after she goes about a quarter of a mile or so she will walk stiff and the sweat will just run off of her until she is as wet as a rat. If I go on and drive about four or five miles she will seem to be all right, and the next day she is as good as ever. I feed cracked corn and oats and she has eaten this feed all her life. Please tell me what the trouble is and what to do.—Pennsylvania Subscriber.

REPLY.—It would appear that your mare has slight attack of azoturia, a disease that primarily affects the muscles causing the stiffness complained of. You will need to be very careful lest this animal if driven too hard reaches a point where she will go down. The best thing you can do is to give this animal several weeks run at grass which will have a tendency to clean out the system and serve to prevent future attacks. Otherwise, if kept on a grain ration and worked at irregular intervals, you are taking a chance of losing her.

907—INJURY—I have a bay mare 12 years old that had its shoulder badly bruised about eight years ago, and in the fall of 1912 she got very lame in the shoulder. I did not work her but put her in a box stall and let her loose in there. There came a large lump on her shoulder as large as a man's hat. I put on a liniment and it soon came open and there were five openings in her shoulder and breast, and they are all healed up nicely except one of them and it is still discharging and has been running all this time for nearly 18 months. Can you tell me what to do to heal up this sore? I want to heal it up from the inside and clean it out before it heals on the outside. She is in perfect health and as fat and round as a pumpkin and feels ilke a colt. She weighs 1,300 pounds and is a beautiful mare.—Pennsylvania Subscriber.

REPLY.—You should have a competent veterinarian examine your animal with a view of exploring the part for a foreign body. It may be that at the time of the original injury some foreign material was driven through the skin and is yet within the part. Or again, sometimes the bone or adjacent ligaments are injured necessitating scraping the same. A good veterinarian should be able to help you out.

908—RHEUMATISM IN A JACK—I have a big coming five year old jack that had the rheumatism last spring but he got over it by April 15th and I made a season with him, but he did not settle over one-third of his mares. Do you suppose the rheumatism in his blood was the cause of it? He was never bred much before. I bred about 40 mares to him. Please give me your advice about the trouble.—Missouri Subscriber.

REPLY.—Sickness of any kind is not conducive to good breading qualities, and if your jack has fully recovered from the disease, and is now vigorous and thrifty, we anticipate you will have better success with him this season. Take every precaution to keep him in a vigorous, high state of health. Keep him in a dry place don't let him get wet.

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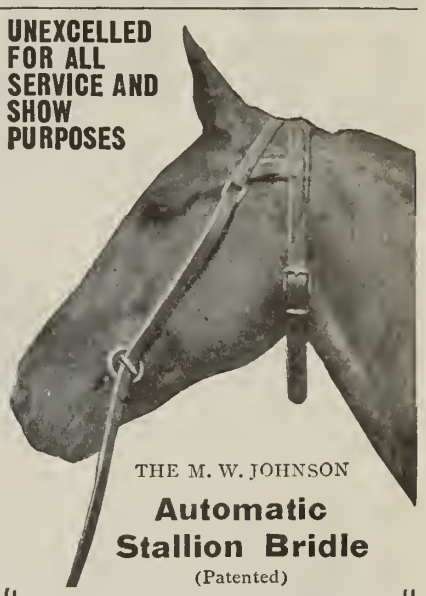
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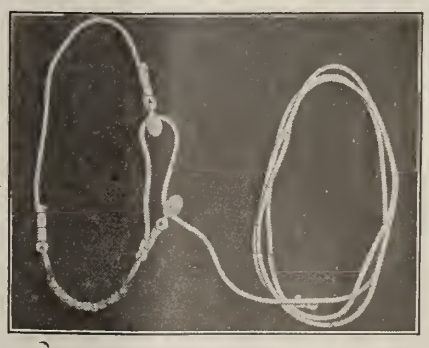
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"Marmalade,"	Crystal Andreas, San Bernardino Co., **California**	**"Bunny,"**	John M. Borsvald, Polk Co., **Minnesota**	**"Irene,"**	Colgate M. Searle, Kent Co., **Rhode Island**
"Pansy,"	Evelyn Culter, Windham Co., **Connecticut**	**"Evangeline,"**	Gladys Houx, Saline Co., **Missouri**	**"Sunshine,"**	Eva Huddleston, Beadle Co., **South Dakota**
"Toby,"	Geo. Lynch, Lake Co., **Illinois**	**"Kris Kringle,"**	Mallena Vashus, Dawson Co., **Montana**	**"Jean,"**	John H. Elrod, Putnam Co., **Tennessee**
"Roine,"	Clarence F. Busick, Adams Co., **Indiana**	**"Tom,"**	Helen Herrman, Cuming Co., **Nebraska**	**"Zip,"**	Ella Fullam, Randolph Co., **Vermont**
"Empress,"	Avery and Orie Knight, Chickasaw Co., **Iowa**	**"Benny,"**	Harold Kiley, Warren Co., **New Jersey**	**"Lulu,"**	Louise Damron, Benford Co., **Virginia**
"Jim,"	Joey Edwards, Barton Co., **Kansas**	**"Joe,"**	Harold R. Palmer, Oswego Co., **New York**	**"Scotty,"**	Catherine Rohrbeck, Pacific Co., **Washington**
"Stubby,"	Harold Quick, Jefferson Co., **Kentucky**	**"Cub,"**	Eugene Mumpower, Buncombe Co., **N. Carolina**	**"Chum,"**	Bozzie F. Thornton, Mercer Co., **W. Virginia**
"Merry,"	Isabelle Whitcraft, Baltimore Co., **Maryland**	**"Paul,"**	Evelyn Sears, Grand Forks Co., **N. Dakota**	**"Pet,"**	Sheldon Adams, DaneCo., **Wisconsin**

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NOT only will we send **"Winkle"** to some lucky boy or girl, but we also send the finest kind of pony outfit along with him. The outfit includes a stylish four-wbeeled pony buggy, a handsome nickel trimmed barness, a hand-made riding saddle and a wonderful Indian horsehair bridle. This bridle cannot be bought in stores, but is made especially for us by an old cowboy at Deer Lodge, Montana, out of beautifully colored horsehair which he weaves into remarkable Indian designs. No child bas a prettier or more complete outfit than the one we send with **"Winkle"** and we know you will be the happiest boy or girl in your state if you send us your name and getthis beautiful pony and outfit for your own. We had just as soon send **"Winkle"** and the Outfit to you as to any other boy or girl but first you must send us your name and address so we can tell you all about our easy plan. You may fil out the coupon helow, or send us your name on a postal card but remember, do it now before it is too late.

Send Us Your Name Today If You Want To Own "Winkle"

Write Your Name and Address Here

THE FARMER'S WIFE PONY CLUB,
565 Webb Bldg., St. Paul, Minn.

Please send me pictures of **"Winkle"** and tell me about your Pony Club and also tell me bow to take care of Sbetland Ponies. I have no pony and want to belong to the Pony Club and get **"Winkle"** for my own.



Name.....

R. F. D.....

P. O.....State.....

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EVERY CLUB MEMBER GETS A PRIZE

EVERY single child who sends us his name and joins the Pony Club will receive a handsome prize of his own choosing. Besides the Pony Outfit (and the Big Surprise we have for you) we will give Bicycles, Diamond Rings, Sewing Machines, Rifles, Cameras, Gold Watches, Flashlights and many other wonderful rewards that you never could get until now. Of course, **"Winkle"** and his dandy Outfit is the best prize of all and you have the same opportunity to get him as any other boy or girl if you send us your name now.

BE SURE TO ADDRESS YOUR POST CARD OR ENVELOPE TO

THE FARMER'S WIFE PONY CLUB

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Dear Pony Club:— certainly am proud of my pony "Babe." He had such long hair during the winter, hut now he has shed off so pretty and is the prettiest pony we ever saw. He is so fat, too. I have had lots of chances to sell "Babe," hut no siree, nothing would buy him. I love him more every day and I don't know what I would do without him—I'd be so lonesome.

I can never say enough for the Webb Puhlishing Company. I thank them over and over for giving me such a nice pony and outfit. They did all they said they would and treated me right.—Roy Brown, McCook Co., South Dakota.

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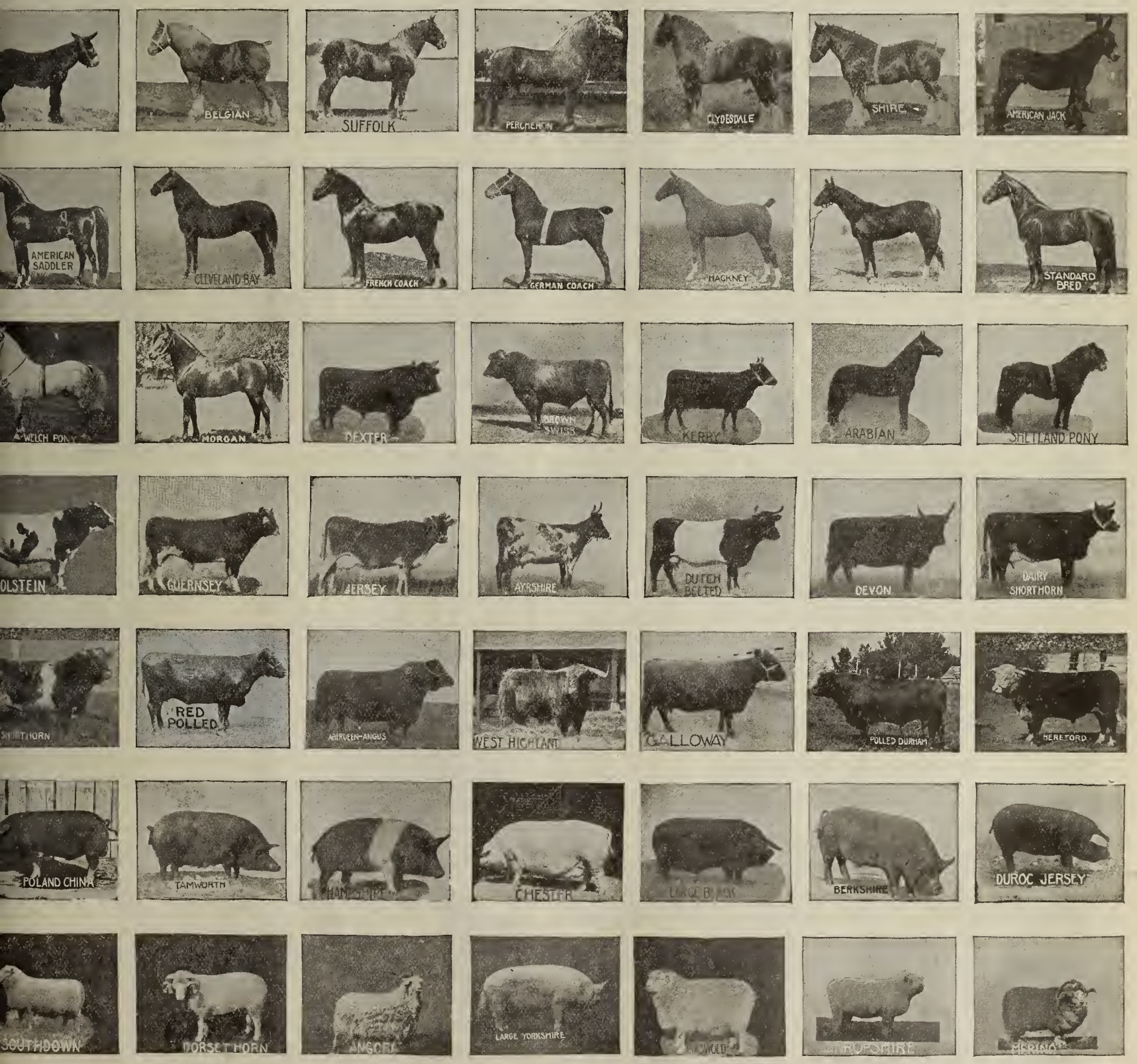
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THE AMERICAN BREEDER

A Farmers' Paper, Devoted to the Breeding and Care of Their Live Stock, and the Welfare of Their Families and Homes.

Published Twice a Month. Subscription Price, $1.00 Per Year, or $2.00 for Three Years, Payable in Advance.

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Percheron Mares and Fillies for Sale

Mostly blacks and dark grays. Farm raised but bighly bred and the breedy, productive kind. If you want to add to your herd or to your farm equipment a team of young mares you will be proud of I can supply you. Correspondence and inspection solicited.

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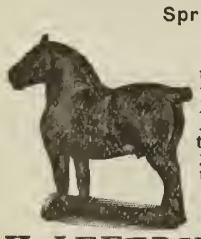
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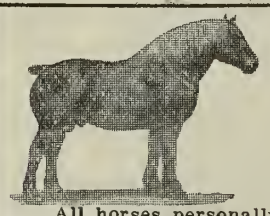
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and one Shire. They range in age from 1 to years; all sound and heavy boned; weighing fr 1800 to 2,200 pounds. There are 17 stallions and mares. I will also sell my herd stallion, Jupi 65723, coming 5 years old; weight, 2200.

These stallions are all sold under a guarantee be 60 per cent foal getters. I have four year o that weigh 2200; 2 coming 3 that weigh 1800. C sell a good ton stallion for $750; sound and ri in every way; some a little higher, and some low I will sell at a bargain to early buyers. I ha both imported and home bred stock. PETER J. EGGERS. DENISON. IOWA

Percheron Stallions, Jacks and Jennets



Imported black Percheron stallions, 5 and 6 years o weight from 1700 to 2100 pounds. These horses are well bro and tried breeders. Can show best colts in Kansas. Can u a strictly good two or three year old jack on a trade for o of these stallions.

Big, black, registered Mammoth jacks and jennets; 1 to years old. Jacks 15 to 16 hands high; tried breeders and qui workers. Can show colts. Herd headed by imported Spani jack. We won more prizes at the Kansas Sate Fair in 19 that all our competitors. Farm 30 miles Northwest of Hutchi son. Come and see us. Will meet trains at Chase or Raymond.

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Good young jacks; 3 to 5 years old; registered; 14½ to 15½ hands hig standard measure. Will sell at democratic prices the next 60 days.

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IE AMERICAN BREEDER
With which is combined
IE STALLION AND JACK NEWS.

APRIL 20, 1914.
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REEDER WHO "SHOWED 'EM."

bout three years ago a Missouri der owned an excellent draft stal-a fine road horse and a big jack. vas having more business than he d attend to by natural service. The year he bred about 20 good, clean, thy mares with capsules. His petitors got busy right away and the people what a fraud it was that the colts would have crooked ; some might only have one eye; rs never would breed and that mare the semen was taken from d be the mother of their colts, a lot of other misleading state-ts. But the breeder said nothing; aited until he could see what the looked like. He found that he d get a better per cent of foals this method than from the nat-service, then he had a friendly with each of his competitors and them that he expected to use the ule system and would like for to confine their statements to ruth. He also informed them that ey did not make true statements after that he would stand the ce of his barn for a ten dollar bill insure the colt to stand and suck 0 days; that he would make sev-stands and advertise a particular at the different places. But they no attention to this proposition.
st year he put this plan into op-on, excepting that he stood his only at home. The results were cient to cause seven of his com-ors to dispose of their breeding , which went to other sections. year he has practically no com-ion within ten miles of his barn. xpects to breed a thousand mares ose three sires during this breed-season. His competitors now plainly see the "Handwriting On the Wall." His success is all possible in any good community. When the capsule colts came the first spring he photographed a good lot of them; got out circulars with signed statements from the owners and scattered them throughout that section. This was good advertising and the last of the objections to capsule breeding. This method of breeding is on such a substantial basis that those who neglect to get familiar with it are losing both time and money.

MORE STALLION INSPECTION LAWS.

It seems that the stallion inspection laws have stood the test and are now permanently on the statutes of nearly half of the states of the Union. Some of them will need revising and numerous changes will probably take place at the next legislatures.

The great problem to consider at the present time is how much of the horse breeding territory is now the dumping ground for stallions that have been rejected where stallion inspection laws exist. This may not be noticeable in every district but to a careful observer the importance of this point is enormous. Those states which wish to continue to receive the rejected stallions can do so at the expense of constantly decreasing quality and value in its horse stock.

As an introduction, the Kansas law, as it now exists (excepting it should have a lien law clause) might be passed in many states very profitably. This law requires that the pedigree or certificate of the animal in question shall be sent to the secretary of the stallion registration board and be classed so that all of the advertising for such stallions shall specify whether the animal is a pure bred grade or belongs to the mongrel class.

The writer happened to visit a county seat town in Missouri a few days ago and was surprised at the character of the pedigrees of the stallions standing for public service in that vicinity. There were 17 different advertisements posted about the town and not a single pure bred animal among them. The advertisements were nearly all of a misleading character. Who would care to buy a high priced registered sire to compete with those misrepresented scrubs and mongrels? Perhaps all of those owners who have been misleading their customers will be "up in arms" when they have to print the word "mongrel" on all of the advertisements for these stallions, (and in type perhaps one inch in height) so that everybody can see just what the animal is and how they have been deceived.

The legislature meets next winter and those who wish the matter of advertising of the breeding of their stallions just as they are, without any misrepresentations, might begin to think and formulate a campaign of this kind. The Kansas law does not require veterinary inspection and is not very expensive to the owners of stallions. An improvement, however, to that law might be that at some certain date in the future licenses could be withheld from all sires excepting pure breds and grades. There is certainly very little use to allow a sire to be used which does not have either a pure bred sire or dam.

SCIENTIFIC POULTRY BREEDING.

In some ways the poultry breeders are our most progressive live stock people, although it is well known that an influence (which has been called "the fanciers' clique") has held back poultry improvement for many years. But real business element among poultry people, the egg producers, are progressive, and one reason is that this element contains more women than men, and women are less suspicious of new methods and less bound by old worn out precedents.

Thus it comes that while the American Breeder has put in several years popularizing the fact that a lot of cheap stallions and jacks in this country could better be disposed with, and (through improved methods) this work be better done by the higher class sires, the progressive poultry interests are coming to adopt a partially similar line of teaching concerning the rooster. Roosters are not castrated as in the case with lambs, pigs, etc. (excepting by a few who specialize in capons) and as a result thousands of young roosters grow up each year and run with farm flocks in which they become nuisances. Only the very best roosters should be allowed to fertilize eggs for hatching, and outside of that the rooster is useful only for meat. The roosters do not aid in egg production but rather retard it by worrying the hens, while every egg fertilized (more than is needed for hatching) represents a loss, as fertile eggs spoil much more quickly than infertile, and the bigger the egg loss, the wider the profit margin which the egg buyer must require. One third of the enormous annual egg loss (and it runs into millions) is charged to unnecessarily fertile eggs.

The striking result from making these facts known is the united action being taken. In many states "Swat the Rooster" days have been named and the experiment stations, agricultural associations and country schools are teaching the program to be carried out on these days. All extra roosters are to be marketed and all others shut away from the hens. In Missouri the day is June 6. In Kentucky, Tennessee and other southern states it is May 16. Other states have named days between these two, and the loafing rooster, like the saloon bum, is going to get a setback, largely at the hands of the women who work.

STAND AND SUCK PROBLEM.

An Indiana breeder writes that the "stand and suck" proposition is go ing to ruin his business. He believes that if all the mare owners were forced to pay cash at time of service that they would take better care of their mares and only breed those they know are producers; he would then have the cash in hand and not be compelled to make any collections. He also gives other reasons for getting the money at time of service.

Every intelligent man understands that the "stand and suck" proposition is not right, but the next question is what to do with it. On more than one occasion have men organized for the particular purpose of avoiding the guaranteeing of colts to stand and suck. Nearly every one of these organizations have failed sooner or later because the owners of scrub horses would not join with them. The "stand and suck" method of doing business is so well established that we do not believe it will change much. The conditions in this country have a tendency to encourage the "stand and suck" method. It is too easy to produce a nice looking grade stallion and get patronage for it in public service. The grades and scrubs can be worked in the field and breed all the mares that come at a very small fee. These owners are usually glad to insure the mare to deliver a colt that will stand and suck before the service fee becomes due, in order to get some business. They have very little to lose.

One of the great problems the owners of good pure bred sires have to contend with is the cheap service fees of scrub sires. Those who have adopted the cash in hand plan have lost money and given their customers an excuse to patronize the scrubs. There is also another feature. There are some breeders who are not capable of standing sires for public service. It would not be justice to pay a cash fee for the services of a sire which was not in a position to get colts. In a case of this kind the mare owner has a right to withhold the fee until the sire has performed his part.

There are some breeders who are scattering disease and doing more damage than they are doing good. These things must be reckoned with in this proposition. Better care of the mares and more knowledge about breeding subjects is necessary. Not many mare owners will keep a mare an entire year and spend some time taking her to be bred who are not anxious to raise colts.

A little closer relation between the breeder and the mare owner usually causes an improvement of conditions. If every mare owner in this Indiana breeder's community was reading the American Breeder he would not need to be so particular about wanting the cash in advance; a better understanding of foal production would exist, as well as a larger and more permanent business.

EDUCATING CUSTOMERS.

Nearly every breeder will have opportunity to meet all of his customers during the next few weeks. This is the time to begin the permanent education. We believe nearly every stallion or jack owner on our subscription list has enough prestige with his customers to influence them to subscribe for this paper. We are pleased with the efforts which are being put forth but are of the opinion that a lot of breeders are neglecting this important opportunity.

No one should be offended if a breeder should say, "Mr. Brown, I am getting up a list of subscribers for the American Breeder. I have a special subscription offer of 25 cents a year, excepting for the months of June, July and August. I do not get any commission for these subscriptions. I believe the American Breeder will be a benefit to you. I have found this a good paper. I believe you will like it. If you do not like it, let me know and I will give you your quarter back. This special offer is made only for a few weeks and I would like to send your name in soon. It only costs you a quarter. The subscription price last year was $1.00 per year. I will show you my paper but I would not care to part with it as it would break my file."

This argument will get a majority of the mare owners. They should appreciate one's interest in their behalf. Many of them can be made permanent readers. Now is the time to get busy. Solicit every man that comes to the barn. Make it a habit so that no one will be skipped.

THE BOOZE BUSINESS IS DOOMED.

Never before in this country have as many people in as many "walks of life" been found openly expressing a wish or hope for national prohibition of the liquor traffic. Recent elections in Illinois, under a local option law, turned dry a territory formerly wet, that is almost equal in population to the state of Kansas.

The women's vote did it—and fearing "more of the same" the brewer and distiller interests are increasing their efforts against "woman suffrage" and inaugurating advertising campaigns to popularize the "personal liberty" idea. This idea (as they want it interpreted) amounts to a declaration that one may drink whatever he wants to, wherever and whenever he wants to. In its effort to keep attention away from the baneful effects, political, social and economical, which always have and always will attend this sort of license, one brewing company prepared a very expensive "Hero Series" of advertisements in which it links with names like that of Prince

Bismarck, its arguments for making more general the use of beer and wines. Papers whose owners pretend to be church members and good citizens are accepting this sort of advertising for the money it brings them, and carrying these degrading advertisements into clean homes both without and within prohibition territory.

In contrast to this depravity on the part of papers that pretend respectability, the Chicago Record-Herald has voluntarily "cut out" a vastly profitable business in liquor advertisements, following in this step, hundreds of the better papers and periodicals. Of greater encouragement, perhaps is the order of Secretary Daniels of the United States Navy, abolishing alcoholic liquors from every mess (both officers and men) on ship and ashore, wherever his authority extends. The greatest importance of this order lies in the fact that it is a government recognition as an evil, of what the anti-prohibitionists have always pointed to as one of the institutions which give official endorsement to their contentions. Next to the great wealth back of it, the strongest prop the booze business has in this country consists of recognition in the form of government licenses and government use of booze. Millions of decent, intelligent people are now praying that this step by Secretary Daniels begins the rapid destruction of that government prop.

In the many city elections which each year go against progress and decency, the saloons and their allies control the winning side, and the resentment of clean-living, home-owning people to the high handed methods of these winning alliances, is building under the liquor business a fire that every right-thinking person should publicly feed, and that waits now only for a favoring wind to cleanse this country of its greatest curse.

THE NATURAL SERVICE.

An Illinois breeder writes that he has been in the breeding business for 30 years without receiving an injury, but a short time ago a mare kicked him in the side and he will be laid up for months.

There is very little use in taking chances of getting hurt. Good men are too scarce. Young men who are quick on their feet stand a little better show, but after a man gets to be middle age he loses that quickness of limb without realizing it. Some mares are very deceiving and kick wickedly and unexpectedly. There is very little need of any one getting injured if he will take the necessary precaution.

Every breeder should have a substantial set of hobbles for these suspicious mares. The one holding the mare's head should be instructed to turn her shortly to the left as quickly as the stallion dismounts, then she will not be so liable to kick either man or horse. It only takes a few seconds to make a mare safe for service. It is mighty hard to find a capable man to carry on the breeding business that can successfully take the place of the regular man in his present occupation. A lot of mares will show to be in perfect heat, yet kick wickedly.

The stallion should be thoroughly under subjection at all times. This can only be done by using a bridle which will conquer him. A stallion should be taught to come up within a few feet of a mare and stop absolutely still, and wait for the command. There is absolutely no use to have a rushing stallion. A few lessons will conquer any horse whose brain is not affected. The average breeder can look back over his past years and count the many times he has narrowly escaped death. This is altogether uncalled for. The breeder should use such safeguards as have been tried and proven effective in the business.

The Fundamentals of Breeding

LESSON III---SEX CONTROL AND SEX CHARACTERS

By H. W. Vaughan of the Iowa Agricultural College

"When I breed my Percheron mare to a Percheron stallion," said a horseman, "I know I will get a Percheron foal, and I only wish I could regulate the sex of the foal as easily as I regulate the breed. I wish I knew how to control sex."

This man voiced a problem which many breeders and investigators have tried to solve since a very early date. As will be shown in a later article, methods by which the breeder could control sex have been announced from time to time, but not one of them has stood the test. The manner in which sex is controlled has been discovered only in the last few years and unfortunately it is entirely beyond the reach of the breeder, as will be shown below.

It is a striking fact that the two sexes appear in equal numbers the world over. As many bull calves are born as heifer calves, as many colts as fillies. This indicates that sex is not determined in a haphazard manner, but is definitely controlled.

How is sex controlled? The skilled investigator has recently found the answer to this question in the same place he found the explanation of Mendel's law, namely, in the nuclei of the germ cells.

In studying the body cells and germ cells of certain species of beetles, scientists have observed a peculiar condition in the nuclei of all the cells. The cells of the male contain an even number of chromosomes of average size and in addition a single chromosome much smaller than the others. This extra chromosome is called the X-chromosome. When the cells of the female are examined, two of these small additional chromosomes are found.

As explained in the first of these articles, the cell division which results in the production of spermatozoa or ova does not give to these germ cells the usual number of chromosomes, but just half the usual number. Now in these male beetles there is an odd or unpaired chromosome, and hence when a cell of the testicles divides to form two spermatozoa, one of the spermatozoa receives the X-chromosome and the other does not. In the production of ova, each ovum receives an X-chromosome because there are two X-chromosomes in each cell of the ovaries. A little study of the accompanying diagram will make this clear.

Thus in these species of beetles sex is definitely controlled by the male germ cells, half of which have the power to produce males and half females. Investigations made on the cells of some other animals besides beetles, including some of the domestic animals, have revealed a similar method of sex control, and many now believe that sex in all animals is controlled by the male germ cell. In many animals no X-chromosome can be seen, but in such cases the X-chromosome is thought to be united with one of the other larger chromosomes. Sex is thus decided at the instant of fertilization and depends on the nature of the spermatozoon which unites with the ovum, and sex is therefore entirely beyond the control of the breeder.

As shown in the diagram, half of the spermatozoa contain the X-chromosome and half do not. All of the ova contain it. When the spermatozoon (A) containing the X-chromosome fertilizes an ovum (C) the result is always a female. When the spermatozoon (B) without the X-chromosome fertilizes an ovum (D) the result is always a male. Thus is sex controlled.

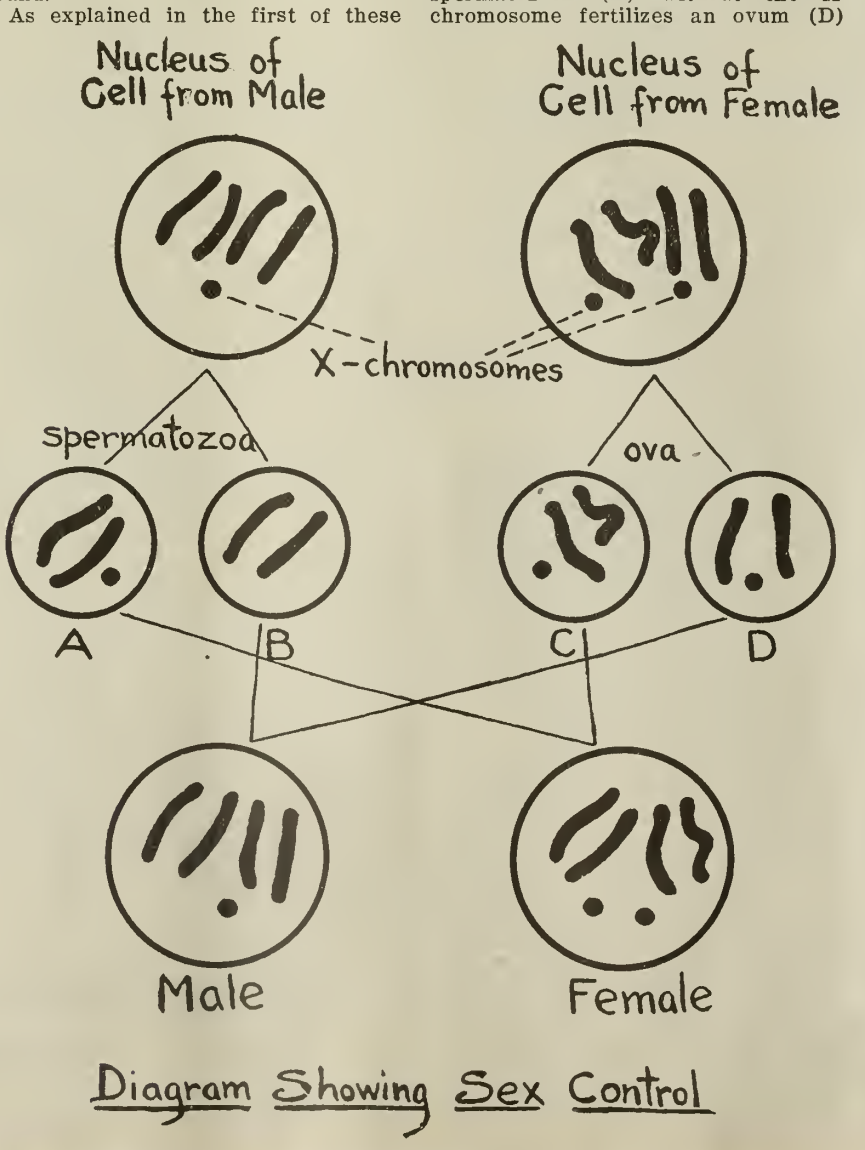


Diagram Showing Sex Control

The question arises as to why some mares produce more foals of one sex than the other. And why do some stallions get more foals of one sex than the other? A moment's consideration will explain this.

Among the large number of spermatozoa introduced into the uterus of the mare at the time of service half will have the power to produce colts and the other half will produce fillies. Now it is all a matter of chance as to what kind of a spermatozoon will fertilize the ovum. Each kind of spermatozoa has an equal chance because there is an equal number of each kind. Nevertheless, a mare may have four stud foals in succession or four filly foals, but if the foals from a thousand mares are tabulated the two sexes will be equal in number.

It is the same as tossing up a coin. There is an equal chance for "heads" and "tails," yet four successive tosses may result in "heads" four times or "tails" four times. But if the coin is perfect in balance and is tossed a thousand times, the number of "heads" and "tails" will be equal or nearly so.

A word may be added here regarding the occurrence of twins in animals which usually produce a single offspring at a time. Twins result in either of two ways: (1) Two ova may be discharged during a period of heat instead of one ovum, as normally. Each of the ova is fertilized hence twins result. In this case the twins may or may not be of the same sex, and may or may not resemble each other closely. (2) One ovum may be discharged and fertilized, but when the fertilized egg divides to form two cells (the first step in the development of an embryo), the two cells do not remain together as usual but split apart and each develops separately, thus producing twins. In this case the twins are called identical twins because they are always of the same sex and resemble each other very closely. They must be of the same sex because both resulted from fertilization by the same spermatozoon. They resemble each other closely because both came from the same ovum and same spermatozoon.

Sex Characters.

As young animals approach maturity they develop what are called the secondary sexual characters. In the stallion these consist of a stronger, larger and more rugged head, a heavily crested neck, heavier shoulders, greater size throughout, heavier bone, and a bold, aggressive disposition. The mare, on the other hand is smaller, she exhibits refinement in all parts, her udder develops, the hips widen, and her disposition is mild. If the very young animal is unsexed the sexual characters do not develop.

Of what importance are the secondary sexual characters to the breeder? In answering this question it must first be stated that some animals are more strongly sexed than others; that is, some males are more masculine than others, and some females are more feminine than other females. The amount of development of the secondary sexual characters indicates whether the animal is strongly sexed or weakly sexed.

Now a weakly sexed stallion, for instance, transmits his good and bad points to his offspring the same as does the strongly sexed sire. But the weakly sexed stallion is not likely to be as sure a breeder as the more masculine horse and he will therefore not settle as many mares during the season.

Females that lack feminine refinement in head and neck, being rather coarse and masculine in appearance are not ordinarily as regular breeders nor as good mothers as strictly feminine females.

A great many people believe that well developed sexual characters in

ate that the animal is a prepotent eeder. By prepotency is meant ility on the part of the animal to mp its characters on the offspring. ere is nothing in this theory. A akly sexed animal has just as good hance to transmit its characters to offspring as has a strongly sexed mal.

The writer knows a breeder of ry cattle who selects for the head his herd a bull that is as feminine king as can be found. He believes h a bull sires more feminine daughs and hence better milkers than es a strongly sexed bull. By this icy, however, he accomplishes the erse of what he desires. Sex acts e a pendulum. If the sire is strong- sexed, the pendulum swings far d his daughters will be strongly ed. A weakly sexed bull gets akly sexed sons and daughters.

ORKS BROOD MARES; CARES FOR COLTS.

To the American Breeder: I have ised a good many colts and have alys raised the best colts when I have rked the mares. Some of them have od first or second in their class at e Shelby County colt shows. Others at I have not shown have made big aft horses. I noticed, at the colt ow, some men passed by the stalls d stopped to look at the mare and lt, and said, "I'll bet that mare has t been worked or she would not have ch a colt." I have let some of them on thinking so; others I have told at if she had not been worked she uld not have such a colt.

My reason for thinking so is that colt will learn to eat oats earlier you work the mare. I always leave ts in the feedbox for them, while ey are quite young. They will get a tle hungry and begin nibbling and on find the oats, while those runng in the pasture all the time (even you take them up and feed the ares) are full of grass, and will not ok around for something to eat; but ill lie down instead.

I work the mares the year round, hich I think is the better way, as it eps them hardened up. I seldom ive them to town but use them ound on the farm. I believe it is t the work that hurts the mare and lt, but the kind of care and treatent. I never let the colts follow the ares in the field; I consider that a n. I also believe in regular feeding the mare, whether she works every ay or not. I turn them out in the asture at night. When the mare has idle day I feed her just the same. me men say, "no, I will not use her day, let her run." That, I think, is rong in more ways than one. It aches the mare to get wise, no feed, work; so when you do want them ey may give you a lively chase ound the pasture, which is not pleasnt on a hot summer morning, if you re in a hurry.

I always start to use the mares the urth day after foaling; the reason r this is that the colt is young and ore quiet and will lie down most of e time and not fret near as much as colt three or four weeks old. I let em have a box stall, or the run of e whole barn where they can drink hen they please. Now you may think colt sucking a mare the first onth or two does not drink much ater. Well, if you would watch my olts one-half day, out in the barn, hen the mare is working in the field, nd see how often they go and take drink, you would be surprised. I elieve if your colts can not have acess to a water trough a bucket of waer should be left for them in the stall. Many a colt stands, day after day, in he hot summer with not a drop to rink but its mother's milk. The mare s turned in at noon, often sweaty and ot. The colt gets her milk; that is ll until evening, when it gets another ot drink. No wonder they get disusted with life and don't grow big.—Geo. Larson, Shelby County, Iowa.

Diagnosing Ills of Horses

Lesson III---Appetite, Chills, Skin Affections

It very frequently happens when a horse is sick that the appetite is suspended. This is especially true if the derangement is confined to the digestive tract. It is rather encouraging in digestive ailments to note that the animal begins to pick at the hay.

Such acts on the part of a horse, suffering from digestive disorders, seem rather inconsistent, for an animal may be in the greatest agony for a time, and in a few minutes be eating. On the other hand, an animal with a disease of some organ, like the lungs, for instance, which are quite foreign to the digestive organs, may take several days to regain its appetite when it has been lost. A total suspension of appetite for several days is a bad sign in any disease and should be regarded seriously. An inclination to preserve the appetite to that point where the diet may be restricted to moderate amounts is to be regarded as a favorable condition, generally speaking.

In order for the animal to withstand the wasting processes attending disease it must be able to take into its body a moderate amount of new material in the way of nourishment.

Owners frequently have erroneous ideas about loss of appetite and will often represent that a certain sick animal has eaten nothing for several days. Perhaps the statement is true so far as the grain ration goes and at the same time the animal has been consuming all the hay it should under the circumstances. A horse by nature abstains from grain first, then dry forage, and loses appetite last for green things, such as grass. A horse that cannot be induced to eat fresh cut, sweet grass can rarely be induced to partake of anything else unless such animal has been a household pet and fed sweets.

Suspension of appetite is of no great diagnostic importance as it may occur in several diseases. It is the one chief symptom noted by the layman and too frequently an owner has not observed that his horse is really sick until the animal has ceased eating. Many owners seem to labor under the impression that so long as an animal continues to eat, it is well enough to be worked. This is a great error, and has led to the loss of the life of many a valuable animal.

There are other causes outside of sickness that may lead to an animal's disinclination to eat, such as spoiled food, either grain or hay; the fact that it has been mussed over by other species of animals; over-feeding; home-sickness; certain species of animals, etc. The latter has particular reference to the erratic disposition of the mule, an animal that frequently will abstain from eating if tired or warm.

The same general remark will apply to the water supply. Horses are clean animals by nature and are loath to eat or drink from filthy places. A horse accustomed to well water will frequently refrain from drinking rain or hydrant water.

Too often in the care of the sick an owner will continue to pile the manger full of hay or throw additional feed into the box. Frequently, in case of the latter, the supply is in part in the form of a wet bran mash which soon sours so that even if the bulk was removed from the box, there would be left behind a stench that a well animal would take exceptions to. The hay in the manger becomes polluted with the breath of the sick animal causing it to leave the hay untouched.

Very frequently in the case of the sick, where inappetance is one of the chief complaints, a little fresh hay with grain in a clear vessel is frequently the only thing needed to start the animal eating.

Another condition often observed during the early part of the sickness is chilling of the animal. This symptom is frequently present in grave febrile diseases particularly of an infectious type. Of itself it points to no particular disease. Its severity and duration generally marks the severity of the disease of which it is a forerunner. This means that the earlier the chill is broken the lighter will he the disease proper. Chill calls for an equalization of the circulation, which is accomplished best by resorting to brisk hand rubbing, the application of warm clothing and warming, diffusible stimulants internally. One needs to distinguish between a chill proper (that is the forerunner of disease) and the shaking or trembling of the body due to exposure to cold. The thermometer will decide any debatable question, as the former will show an elevation of temperature while the latter will be normal.

Skin disorders are due to a great variety of causes. There is a great class of skin affections that start with abrasions from harness, collar or saddle, and in the course of time become infected resulting in localized abscesses or more systemic diseases, like tetanus. As a rule these cases are not difficult to diagnose, for the offending agent is at hand for inspection. Repeated pressure of dirty harness or saddle on a wounded surface carries with it danger. This is especially true of a recently made wound.

Again, there is the class of wounds on different parts of the body induced by kicks, blows and other accidents, that are frequently the cause of serious loss. Such wounds are, as a rule, more or less infected at the time of the accident, which may be severe enough to result in blood poison and death of the animal. Wounds of this class may penetrate joints or tendon sheaths opening the same and permitting the synovia to escape, which is always a serious condition. Some horses' skins are particularly susceptible to irritating influences and therefore become inflamed easily. A horse kept very fat and not permitted to take the proper amount of exercise will sometimes develop an eczema that will prove obstinate to overcome. Local irritants have their effect and often cause inflammation of the skin about the legs and under surface of the body wherever these irrating substances contact. Animals confined in muddy lots during freezing weather, or forced to plough through filthy places in search of food or water are often so affected. Cases of mud fever, scratches and grease can usually be traced to some such cause, or had their primary origin in some such condition.

Again we have the great class of parasitic skin affections, including mange, lice, ring-worm, etc. It usually requires a magnifying glass to discover the exact cause of this class of skin diseases; unless it be some of the larger forms of lice. As a rule parasitic skin diseases spread rather rapidly and cause considerable itching, causing the animal to rub. In the case of lice the rubbing may take place on almost any part of the body, due to their general distribution. It is not always easy to discover all forms of lice that annoy horses, which statement particularly applies to the pests that infest poultry. One should carefully note whether or not poultry houses are adjacent to the stable or if fowls roost near the stalls where horses show signs of lice infestation. Stand the animal for a short time in the warm sun and the lice will come out of the protected places when they may be seen more readily on the hair of the animal. At other times a search should be made under the mane, low down, back of the shoulders, or in the region of the flank. In the case of mange the areas are more localized and the skin becomes thickened and gradually devoid of hair. The animal often rubs itself to the point of causing bleeding.

Ring worm starts with a small spot, scaly in appearance, loss of hair, thickened skin, etc. It gradually increases in size and inclines to assume a circular outline.

Numerous small abscesses form in the skin from such diseases as cutaneous glanders and the infectious forms of lymphangitis. It is difficult to tell these two diseases apart, but both are serious and when suspected no time should be lost in securing expert advice from the state officers.

A dull, lustreless coat usually goes with unthrift and might be occasioned by faulty care, bad teeth, old age or some chronic disease. Frequently a tight skin (hide bound) is associated with it. An animal in thin condition, if caused to thrive rapidly, will often shed its coat promptly. As a rule, shedding the coat is a good sign of a thriving state of the animal.

Swelling of the legs may be induced by arousing an inflammation in them through hard road work. An animal accustomed to regular exercise, if tied up in the barn for several days, will suffer from swelling of the legs for a time. This is very bad practice at the best and is very unnatural to the animal. Every owner of horses or mules should provide a place where his animals may be turned for exercise when not working, for by so doing their general health will be preserved and they will be less liable to contract such fatal diseases as azoturia. Some animals stock in the limbs when merely standing in the barn over night. Such animals should be confined as little as possible and should (if permissable) have a yard or large box stall in which they may move about.

Marked swelling of the limbs occurs in diseases like influenza, purpura hemorrhagica, lymphangitis and cutaneous glanders.

It is not always easy to distinguish between these diseases except by noting the other symptoms associated with the disease. In influenza, as a rule, all the limbs are swollen and are inclined to be confined to the region below the knees and hocks. In purpura the limbs are enormously swollen and, as a rule, begin above the knees or hocks and gradually extend downwards. The line of swelling generally terminates abruptly above. Lymphangitis is usually restricted to one limb, which is generally a hind limb. The swelling is usually large and extends above the hock and the inside of the limb above that joint is very sensitive to pressure. In cutaneous glanders the swellings are irregular, and in the course of time small abscesses or boils will appear on the affected limb or other parts of the body.

In all of these diseases there will be more or less lameness or stiffness of gait.

There are acute disturbances of the skin induced by heat and digestive disorders that result, among other things, in localized skin elevations. Nettle rash forms a good example of this. In nettle rash blotches come up suddenly on various parts of the body and in the course of a few hours the body will be pretty well covered with these localized elevations which range in size from a ten cent piece to the size of one's hand. As a rule, they subside in from 24 to 48 hours. Such blotches appear occasionally in such diseases as purpura hemorrhagica, but are inclined to remain for several days.

A Department For Women

PICTURES IN THE HOME.

To the American Breeder:—No one can tell you what pictures to hang on your walls—that is a matter of individual taste. But an attempt should be made to have the pictures harmonize, not only with the others in the same room, but with the background. Many rooms having restful, harmonious wall colors are spoiled by the variety in frames and mats, or by the groupings of the pictures; also by putting into a small room a picture that needs distance to bring out its full meaning.

It is not necessary to have the pictures all the work of one artist, or all of the same subject, but they should harmonize in tone and style of frame. —Alice McFeely, University Farm, St. Paul, Minn.

HOW TO WARM WRAPPED BREAD.

Many persons who are fond of freshly baked and even warm bakers' bread have, it seems, been opposing the modern sanitary method of having all bread wrapped and sealed cold and not handled by clerks or exposed to dust, flies, germs and filth on counters or in wagons. The Bureau of Chemistry of the Department of Agriculture regards the wrapping of bread as so important that it has caused the plant chemistry laboratory to make a series of experiments to determine whether those who like fresh or warm bread cannot get what they want in wrapped form. Bread fresh from the oven if wrapped while warm becomes moist and clammy and of unpleasant flavor. Loaves, therefore, must be allowed to cool thoroughly before being wrapped. After some experiment, the experts found that if a cold wrapped loaf is unwrapped and placed in a pan in the oven in good medium heat for ten minutes, it will be as good as fresh, crisp without and tender within, and, at the same time will be free from any pollution it might have gained if conveyed unprotected from baker to consumer. The bureau believes that if lovers of warm bread will try this plan, they, too, will become ardent advocates of the clean, wrapped method of purveying bread.

A QUARTER MILLION TREES

A quarter of a million young trees have been shipped by the forestry department of the Kansas State Agricultural College in the last ten days. Of Chinese arbor vita trees alone 150,000 have been sent out. Other kinds for which there has been a heavy demand are the catalpa, of which 50,000 have been shipped, and honey locust, which has a ten days' total of 20,000.

The demand from Kansas farmers for young trees, says the state forester, C. A. Scott, is greater this year than ever before, while weather conditions are thoroughly favorable this season for excellent growth.

CUT LOAFERS OUT OF CHICKEN BUSINESS.

The Department of Agriculture at Washington advises that on the 1st of May all male birds be either killed, sold or confined until the 1st of December or as late as the 1st of January in some localities, inasmuch as it is not necessary to the laying qualities of a hen that a rooster be maintained in the flock. Moreover, his presence during those months means fertile eggs, which mean bad eggs and the consequent loss to the producer and the consumer.

It is advisable to market the old hens in the summer as soon as the second laying season is over, continues the Department's advice, as hens over two years old rarely lay as many eggs as they do in their pullet and yearling seasons. Keep the nests clean; provide one nest for every four hens; gather the eggs twice daily; keep the eggs in a cool, dry room or cellar; and market them at least twice a week. Market all cockerels except those intended for brooding purposes, as soon as they attain broiler size, for they will pay a larger profit at that time than if held until fall, when the market becomes over-crowded.

COST OF FEEDING LAYING HENS.

T. E. Quisenberry, superintendent of the National Egg Laying Contest at Mountain Grove, Mo., writes that the hens in the last contest laid about twelve dozen eggs each on the average which, if sold for 25c per dozen, equals $3. The hens ate about 33 pounds of grain each and about 38 pounds of dry mash. The feed cost on the average about 2c per pound. This made the cost of feeding each hen approximately $1.42. This left a profit of $1.58 per hen to pay the expense of labor and other expense incurred. Twenty-five cents per dozen is a very conservative price to put on selected and guaranteed strictly fresh eggs. The best pen of hens laid 2,073 or an average per hen of 17¼ dozen, at 25c, equals $4.31, or at 50c per dozen, would have equaled $8.62 per hen. Each of these hens ate $1.46 worth of feed which left a profit of $2.85 at a low estimate, or a profit of $7.16 per hen if the eggs had sold at 50c per dozen. The poorest pen in the contest just laid enough eggs to pay for the feed and left nothing to apply on labor. There are many such hens in existence. One-half of the hens in existence are kept at a loss. How to make them profitable is the problem.

The best record made thus far by representatives from the different countries is as follows (per pen of ten hens or pullets):

White Leghorns, made best English record, 610 eggs in 90 days.

Buff Orpingtons, made best United States record, 501 eggs in 90 days.

Single Comb Reds, made best Missouri record, 466 eggs in 90 days.

White Leghorns made best New Zealand record, 341 eggs in 90 days.

White Leghorns made best Vancouver Island record, 322 eggs in 90 days.

White Leghorns made best British Columbia record, 309 eggs in 90 days.

White Wyandottes made best Ontario record, 301 eggs in 90 days.

White Leghorns made best Australian record, 278 eggs in 90 days.

White Leghorns made best South African record, 216 eggs in 90 days.

The poor showing made by some of the foreign pens is due entirely to the poor condition of the pens at the time they were received, caused by the hardship and length of time in shipping and the severe changes in climatic conditions. One of the New Zealand pens had to be removed from the contest, and all suffered greatly. The same was true with the Australian and South African pens. It is only justice to them that we make this explanation.

NEW WORLD'S BUTTER RECORD.

By one pound and 59 hundredths a Guernsey cow owned at Berwyn, Pa., has beaten the world's record for butter fat, her yield for a year having been 1,059.59 pounds. Her milk yield for the period was 19,639.38 pounds or nearly ten tons of milk.

This announcement comes from William D. Caldwell, secretary of the Guernsey Cattle Association.

The former record was held by a Holstein cow owned by F. F. Field of Brockton, Mass., which produced 1,058 pounds of butter fat in a year.

PATTERNS FOR WOMEN AND CHILDREN.

SPECIAL ANNOUNCEMENT. We will forward, on receipt of 5c the Spring number of the Home Dressmaker, illustrating the latest embroidery designs, as well as hundreds of designs of garments for Misses, Women and Children, and containing two pages of hints on Home Dressmaking.

9899. Girls' Dress. Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3 yards of 44 inch material for an 8 year size. Price, 10c.

9905. Girls' Dress, with Shield. Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3 1-4 yards of 44 inch material for an 8 year size. Price 10c.



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In ordering patterns, be sure and fill in name and address plainly, also number and size of pattern desired.

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9505. Ladies' Kimono. Cut in sizes: Small, Medium and Large. It requires 5 yards of 44 inch material for a medium size. Price 10c.

9900. Ladies' Apron. Cut in sizes: Small, Medium and Large. It requires 5 yards of 27 inch material for a medium size. Price 10c.

9741. Child's Rompers. Cut in sizes: 6 mos., 1, 2 and 3 years. It requires 2¼ yards of 36 inch material for a 3 year size. Price 10c.

9892. Boys' Russian Suit. Cut in 4 sizes: 3, 4, 5 and 6 years. It requires 3 yards of 44 inch material for a 5 year size. Price 10c.

9902-9894. Ladies' Costume. Waist 9902 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 9894 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 5¼ yards of 44 inch material for the entire costume in a 36 inch size. The skirt measures 1½ yards at the foot. TWO separate patterns, 10c FOR EACH pattern.

9893. Ladies' Dress for Maternity or Invalid Wear. Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6¼ yards of 44 inch material for a 38 inch size. Price 10c.

TELEPHONES FOR ISOLATED DISTRICTS.

To the American Breeder:— There are still many more or less isolated communities where it seems impossible to get telephone connection with the outside world. As a rule these are places where the operating company could furnish service only at a loss. However, if the residents of these sections would get together and form an independent company, they could have local telephone service at a very small cost. Neither need a company of this kind be deprived of the advantages of long distance communication. The American Telephone and Telegraph Company has recently agreed to give independent companies toll line connections, provided they come up to certain requirements that are easily met. This makes it possible for any independent company to give its subscribers long distance service provided its lines terminate in a village where there is a Bell office and this would usually be the case.

The cost of a system of this kind varies so widely with different communities that it is not advisable to give figures in this article. The pole line is the biggest expense, and its cost for such conditions would be practically independent of the number of phones. We will be glad to furnish further information as to best equipment and probable cost to parties that will give us some idea of their local conditions.—F. J. Rankin, Colorado Agricultural College.

Concrete Cistern and Filter.

From the viewpoint of the intelligent housekeeper, there are few things more important than an abundant supply of soft water. In the kitchen, laundry and bath room it means lightening of labor and economy. The ideal soft water is rain water, and the old-time rain barrel, so long an institution in this country, is still extant in some rural districts. It is the purpose here to discuss the ideal "rain barrel," a reservoir unlimited in capacity that may be made indestructible and impervious for all time, something cheap as to first cost and never needing repairs. The perfect reservoir is the underground cistern of concrete.

The first underground cisterns were always prone to leak. In wet weather the ground water seeped in and transformed the soft water into water as hard as that from the well. In dry weather such cisterns were empty. By means of concrete property owners are now able to build their own cisterns that are jointless, watertight and large enough to store an abundance of soft water even in the dryest season.

Concrete cisterns usually consist of two general types—underground and surface cisterns. The choice is dependent upon the amount of space available in the yard. Cisterns on top of the ground will be treated in a later issue.

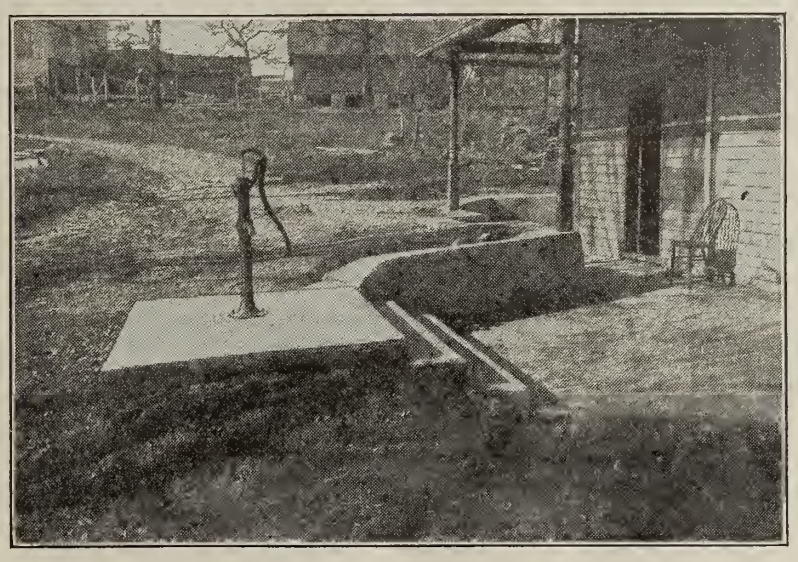
Underground cisterns may be built in any shape desired. For the same amount of concrete, round cisterns (with a depth equal to the diameter) will hold the most water. However, since round forms are not easy to frame, most cisterns are made square. To illustrate the usual method of building, consider the construction of a cistern 8 by 8 by 8 feet in the clear, with walls 8 inches thick and with a capacity of 121 barrels. Before beginning the work, have all the materials on hand, slightly more than required.

Locate the cistern in the most convenient place. Since the walls are 8 inches thick, lay out the hole 9 feet 4 inches square. The concrete bottom is 6 inches thick. Therefore dig the pit to the depth of 8 feet 6 inches. Since the concrete cover or platform will be 5 inches thick, the top of the cistern will be 5 inches above the ground, which is a desirable feature. If the earth walls stand firm, only an inside form will be needed; otherwise make a similar form for the outside of the walls. This form should be built (each side separately) previous to digging the pit, so that it may be quickly erected and the cistern finished before a possible shower makes the hole muddy. For siding, use 1-inch boards on 2 by 4-inch uprights spaced 2 feet. As soon as the hole is dug, set up the forms on 6-inch cubes or bricks of concrete, with 1-inch removable wedges between the forms and the bricks. The side wall forms will later support the platform on which the concrete cover will be built; and unless these wedges are used, the forms will bind and be difficult to remove. Join the forms at the corners so that they can be easily taken down after the cistern is finished. Against the earthen walls, and braced to the inside forms, set 1-inch boards, 12 inches wide, so as to prevent dirt from crumbling and falling into the cistern.

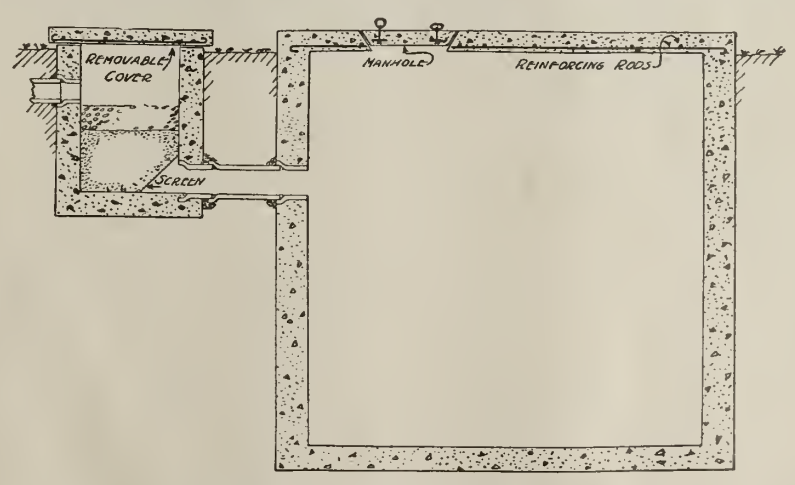
Mix the concrete 1 part Portland cement to 2 parts sand to 4 parts crushed rock. In measuring the quantities, consider 1 bag of cement equal to 1 cubic foot. If gravel is to be used, proportion the concrete 1 part cement to 4 parts clean gravel. For the floor have the concrete just wet enough to flush a little cement mortar to the surface when tamped into place. See that there is an abundance of mortar around the concrete blocks supporting the forms. Immediately begin filling the sidewall forms with concrete mixed mushy wet and placed in 8 to 10-inch layers around the entire cistern. Be careful not to shovel the concrete against the earthen sides as dirt in concrete is liable to make a leaky wall. Do not stop until the forms are filled. At the proper points, insert an overflow opening (if desired) and a sewer pipe connection for the water from the downspout or the filter and the pipe connection for the pump in the house. This pipe should be carried 3 to 4 feet under ground, out of danger of freezing.

To keep out mice, vermin, scrub-water or filth, every cistern should be covered with a concrete platform reinforced with steel rods. After the concrete walls have been brought to ground level, set a wooden frame around the outside of the cistern so as to hold the concrete for the 5-inch platform. To run water off the finished cistern cover, slope this frame 1-inch in the direction desired. Five inches below the finished top of the cistern cover construct a strong wooden platform of 1-inch boards for flooring. Build this on 2 by 4-inch joists nailed to the uprights of the side forms. This wooden platform will support the concrete cover until it is self-sustaining. To provide for a manhole opening take 1-inch boards 6-inches wide and build a bottomless box 5 inches deep, 2 feet square at the top and 18 inches square at the bottom—outside measurements. Another plan is to have the tinsmith make a round bottomless tin form 5 inches deep, 2 feet in diameter at the top and 18 inches at the bottom, after the pattern of a large dish pan without a bottom. Grease the manhole frame and set it on the platform where the opening to the cistern is desired. An iron manhole frame and cover can also be used. By a similar use of a section of a gas pipe or small drain tile, leave an opening for the pump stock, if an out-door pump is to be used. Around this opening in the soft concrete place bolts (washered) for the pump. To locate the bolts correctly, set them by means of a wooden block in which holes have been bored spaced exactly like those in the iron pump base.

Over the entire platform, spread 1 inch of concrete. For reinforcing quickly place on this concrete 10-foot lengths of 3-8 inch iron rods running in both directions (criss-cross) and spaced 1 foot apart. Bend the ends to a hook shape. Strengthen the platform around the manhole opening by placing two rods on each side. Bring the cover to its full thickness by immediately tamping in the remaining 4 inches of concrete. Finish the surface with a wooden float (a trowel) the same as for sidewalks. If the tin form is used, the manhole cover may be cast at the same time as the remainder of the floor. Reinforce the cover with short lengths of iron rods laid criss-cross. As a lifting ring for the cover, use half of an old bridle bit or a hitching post ring, the end provided with a knob of twisted wire or with a nut and large washer for holding it firmly in the concrete. If the wooden manhole form is used, carefully remove it after 5 hours. After 3 days build the manhole cover the same as for the tin form, with this exception—place greased paper or card-board around the edge of the opening to prevent the new concrete from sticking to that of the platform. To make the manhole cover lighter in weight, before placing the concrete, spread 1½ inches of wet sand over the wooden platform in the manhole opening and then tramp in the concrete. Take care to place the reinforcing within 1 inch of the bottom of the manhole cover. When the cistern platform is two weeks old, remove the manhole cover and saw an opening in the wooden floor. Descend, knock out the 1-inch wedges under the side-wall forms, take the forms apart and pass them out through the manhole opening.



Pump Set on Concrete Cistern Platform.



Cross Section, Concrete Cistern and Filter.

It is generally advisable to filter rain water. For this purpose provide a filter on the outside of the cistern proper. Construct this filter in the same way as the cistern was built except that the reinforced concrete cover should be loose so that it can be removed. Therefore, mold it on a smooth surface such as wooden floor, and later put it in place. Make the concrete walls and bottom 6 inches and the cover 4 inches thick. Under most conditions a filter 2 feet square and 3 feet deep in the clear is large enough. Carry the walls a few inches above the surrounding ground. At the filter floor level connect the filter with the cistern by means of a 6 to 8-inch sewer pipe or drain tile laid with carefully cemented mortar joints. Likewise, 1 foot from the top, lay a similar connection for the pipe leading to the downspout. Instead of using a square inside form for the filter, a barrel may be used. In the filter place a galvanized screen of ¼ inch mesh over the pipe opening to the cistern. Fill in 18 inches of coarse charcoal. Cover the charcoal with 6 inches of sand and gravel. Place the slab cover on the filter, and the cistern is ready for use.

Below is given the amount of materials required for the cistern and filter. Since the prices given are liberal, by getting quotations from local dealers, the cost of the cistern may be found to be less. The cost estimate is as follows:

Crushed rock, 11 yds at	$1.10..	$12.10
Sand, 5½ yds at.....	1.00	5.50
Portland cement, 18 barbels at.....	2.50..	45.00
Reinforcement (18¾ in. x 10-in. rods) 93 lbs....		2.10
Total.		$64.70

No estimate of the labor is given as the suburban or country dweller can easily build his own cistern with ordinary farm labor.

METHOD OF EXTERMINATING COCKROACHES.

With the approach of warm spring weather, cockroaches multiply rapidly and leave their winter hiding places. If cockroaches are troublesome in the house the following simple remedy recommended by the Department of Agriculture at Washington will unquestionably destroy great quantities of the pest and keep them in check as effectively as troublesome insect powders and dangerous poisons:

Mix one part of plaster of Paris and three or four parts of flour. Place this dry mixture in a saucer or on a flat piece of wood or tin where roaches are numerous. Nearby place another flat plate containing pure water. Supply a few inclines of wood or cardboard from the floor to the edge of the plate or saucer to give easy access. Float one or two thin pieces of wood on the water so that they will touch the edge of the dish. The insects readily eat the plasture mixture, become thirsty and drink. The water makes the plaster set in the intestines and kills the roach. Such traps may be placed in pantries, and bakeries in particular, with good results.

BREEDING STOCK WANTED AT LA-CROSSE, KAS.

To the American Breeder: There have been requests from the mare owners of Rush county for breeding stock to make the coming season at La-Crosse, Kas. There is a good opening here for two draft stallions (Percheron preferred) and one jack. Do you know of any one that would care to come to LaCrosse, Kas., with the above described stock.—Kansas Subscriber.

Successful Horse Breeding

Some breeders' greatest ambition is to add another mare to their business. If a service can be made it will hold her for the season. This might seem good business, but a lot of sires are ruined from excessive service, the per cent of foals is low and the financial end has suffered. Everytime a mare is bred some denifinite results should follow. If a mare is not in condition to be bred she should be treated. If there is a condition about the cervix tbat will prevent the semen from entering the womb, she should be bred witb capsule. If the number of mares is too great for a sire, capsules should be used to relieve this excessive service. Frequently breeders get crowded and make two or three regular sevices daily and injure their stallions temporarily if not permanently. This is more especially true with young sires.

Within the next few weeks there will be a lot of horses seriously injured from too many services. A lot of mares will be bred over and over again, crowding out good, clean, healthy mares during a very busy time. All of these things require some thought, especially when every service is expected to get results.

Times are changing. Many new inventions have been brought into use during the last few years. Every line of activity is requiring more thought, but we doubt if any line of invention has grown more rapidly during the last few years than the capsule system of breeding. We could print hundreds and hundreds of testimonials from successful capsule breeders. When we stop to think that 7,000 men are now using the capsule system in tbe United States, the growth of this system is realized. There will probably be more mares bred with capsules this year than ever have been bred by that method in all former times. A lot of breeders have just been trying it out to find out what they could do. A number of them will breed from 200 to 300 mares to a single stallion or jack. Some breeders have rather looked on this system as a joke, but they are losing a lot of money by not giving it a serious consideration. A few men have failed, largely because they did not have confidence in it. They cannot go at it in a half-hearted manner, as no one can expect the best results without giving the subject some thought.

There is one thing sure that when the spermatozoa are deposited in the uterus of a mare, in a normal, healthy condition and at the proper temperature, that is all any stallion or jack can do, and more than a lot of them do accomplish. This one fact alone should be sufficient argument in favor of capsule breeding. It is very easy to breed from 10 to 20 mares at one service of the stallion. Tbere are about twelve billion spermatozoa in the average discharge of a draft stallion, making one service a day. Only one of them can be used in fertilizing a mare excepting in the case of twins. All the rest are lost or wasted. This mechanical assistance greatly assists nature. Scientifically speaking, the veterinarian and the physician only assist nature. Some may say that this is not natural. Tbose making such a statement will have to disregard all other scientific principles. A lot of the successful capsule breeders plainly state that if it were not possible to fertilize several mares at one service of the stallion, they would go out of business.

The weather is now about right to begin capsule breeding. No one should expect best results before the 25th of April. Breeders should wait until the weather is warm. The big problem in artificial breeding is keeping the semen at the right temperature. Most of the failures in artificial breeding have been due to the failure to keep the semen at about body temperature.

The following are a few of the many testimonials received at this office on capsule breeding:

March 31, 1914.—My experience with the capsule system is far ahead of the old way. I settled several mares last season that had never been settled and had been bred by natural service several years. Capsule colts are better and stronger and stand up straighter because they don't have to crowd the horse or jack. I think the best way to breed the shy breeding mare is to capsule them about two days after gone out of heat. I mean those with large open cervix. When I quit using the capsule system I will quit the business, for I never will go back to the old way.—John Wilson, Wayside, Ill.

April 3, 1914.—Any mare (ANY, I say) can be bred and settled with a capsule if she can be bred at all. The man does not live who can find any difference in favor of colts from natural service over capsule service. And take my word for it, capsules will settle shy breeders three out of four times.—H. F. Fox, Sedan, Mont.

April 3, 1914.—I am pleased to tell you the capsule colts are as good if not better, at least some of them, as the other kind. In regard to shy breeders I cannot tell as I have not had any experience with them.—Emil J. Lorenz, Jamestown, N. Dakota.

April 4, 1914.—I foaled several mares last season, each with one capsule, that had been bred for three years to the same jack without results. Capsule breeding is more successful than natural service when properly handled. Colts are just as good.—R. J. McAdams, Lishan, Louisiana.

April 1, 1914.—I have just as good success settling mares with the capsule system as by natural service. I settled a few old mares that never would settle by natural service and the colts are just as good.—D. S. Marker, Millarton, N. Dakota.

March 31, 1914.—I have succeeded in getting mares to foal by the capsule method that have failed for five years to get in foal from natural service.—Vincent Lyness, McHenry, North Dakota.

April 1, 1914.—I am only breeding a few mares now, not in the public breeding business enough for capsules yet. But I own a six-year-old Grade Percheron mare that is worth $300.00 gotten by an impregnator a half hour after the service. Capsules are the best in my opinion.—Carl Boroughs, Kingman, Kansas.

April 1, 1914.—I can not say enough for the capsule method. No modern breeder should be without capsules or impregnator to settle barren mares and shy breeders. Mare owners are educated to the point now, where they expect stallion and jack men to be qualified to use these modern methods in their breeding operations. I have used the capsule method and am thoroughly convinced that it is O. K. Colts are fully as good as from natural service.—W. H. Hager, Carmen, Okla.

April 2, 1914.—I think capsule breeding is a success, for I have had good success using it. I have mares that could not be caught any other way.—Chas F. Loomis, Jewell, Kansas.

April 1, 1914.—In regard to capsule breeding, I am more convinced than ever, after two years' experience, that it is the practical way to breed and I have also convinced a lot of my customers of the fact. I have never gotten as many foals from one service as some report but I have gotten three or four several times and I have settled quite a few mares that have never been settled before. Last season I bred with one horse as many as two horses could do naturally. I am getting more foals than three horses get on the average by natural service. I am awfully well pleased with the capsule system and I would go out of the business if I had to go back to the old way.—A. J. McLarty, Starkweather, N. Dakota.

April 1, 1914.—I think the capsule system is all right and a sucecss beyond all doubt. I think I had pretty good results for my first season with capsules. I have settled a number of mares with capsules that I could not settle with the natural service. I think the colts are just as good, and better, as you don't have to use the horse so much.—Wm. Cameron, Wilmot, S. Dakota.

March 30, 1914.—I regard the capsule much surer than the horse. I am firmly convinced that it makes no difference whether it be natural service or capsule about the strength of the colt. If the seed is strong the result will be the same if planted in a healthy uterus. In regard to using a microscope; I think that the only way to breed.—W. F. Dusell, Montevideo, Minn.

April 3, 1914.—I think I have had good luck last year with the capsule system. It was my first experience. I sure think the time is close at hand when all progressive breeders will use this system. My neighbors did not have much faith in it, but seem to think it all O. K. now.—J. R. Lawson, Ravenwood, Mo.

March 31, 1914.—Mares can be bred successfully with capsules and colts are just as good. I can settle mares with a capsule that I can't with natural service to my jack. If all goes well, I will be able to show five colts from one service out of seven mares and four out of six mares. I will tell you the truth, I could not run my business without it.—J. W. McGuire, Osborne, Kansas.

April 1, 1914.—If properly done, capsules are just as good and better than the natural service on barren mares and shy breeders. I have one mare twenty-eight years old, that has not had a colt for years, ready to foal from one capsule. Also one with her tbird mule from a single capsule, on her ninth day each year. I have just as good a per cent on my books from capsules as from natural service. Still some are skeptical. If their mares fail to settle they condemn the system and say it is not natural and don't believe in it. I can't see any difference in the colts and I have some three years old.—R. H. Hubbard, Jet, Okla.

March 30, 1914.—It is my experience that has proved capsule breeding a success, that the colts are just as good as with the natural service. With shy breeding mares, I think the capsules are better.—J. A. Swearingen, Breckenridge, Okla.

March 30, 1914.—Last year being my first year's experience with capsule breeding, therefore my experience is limited. Bred but very few mares with the capsule but have several in foal, two that had been bred for several years and never settled but I settled them the first time with the capsule. As to capsule colts being as good as any other, don't see why they should not be. I know by experience that the capsules are better on shy breeding mares than the natural service.—Clarence W. Smith, Phillipsburg, Kansas.

March 26, 1914.—I have settled a great number of mares with capsules alone. The colts are equal to those from natural services. Some mares that we could not settle by natural cover have produced from capsule breeding, but some mares are not breeders either way.—O. A. Seaton, Jewell, Kansas.

March 26, 1914.—I have not done very much of capsule breeding but have had good success with what I did. It is the best way for shy mares and the colts are just as

Enter Your Percheron

IN THE AMERICAN BREEDER STALLION SHOW.

Entry Limit Extended to April 30.

Read Full Directions Below and Help Create Interest in Better Horses by Using One or Both of the Entry Blanks.

Competition in this contest is limited to mature animals—that is, stallions four years old or over. Each one, as its photo and description are received, will be given an entry number, which will be published with the picture and measurements. No names will be given out until the awards are made. Then all of the entry numbers will be published, along with the names of the stallions, and owners who entered them. Each photograph should give a straight side view of the stallion's body, but may show his head turned slightly towards the camera if the owner desires. Only a few measurements are required. The blank below sbows which ones. These measurements and a good, clear photograph will show pretty accurately, to an experienced man, what the stallion is as an individual. Measurements should be taken with a tape line drawn tight enough to press tight to the skin, but not enough to press into the flesh. We reserve the right to have a committee remeasure any animal and publish the result of its findings. Photographs can be any size, but those on which the stallion's body measures, in length, three to six inches are usually best. It is most important that they be clear and that the stallion stands straight and naturally when photographed.

Make all entries in one of the blanks below; clip it out and mail to the American Breeder.

American Breeder Stallion Show—Kansas City, Mo.

Enter my stallion, as follows:

Stallion's Name.....Record No.....

Height (measuring from a point level with the top of the withers straight to the ground)..... inches. Heart Girth (around body just back of forelegs).....inches.

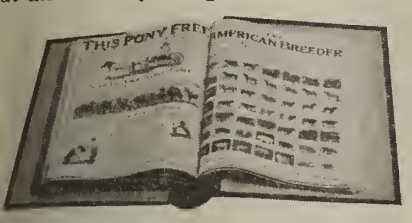
Bone (around foreleg, smallest place between knee and ankle).....

Owner's Name..... County.....

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strong and good formed colts as any you can get.—A. H. Holloway, Warsaw, Mo,

March 27, 1914.—Thinking the following remarks might be of interest to you, I will say that I have carefully compared my service book with the mares known to be in foal or have already foaled this spring. Fifty-eight per cent of all the mares given the natural service are safe in foal, 70 per cent of all capsule bred mares safe or have delivered their foal. Have settled several mares that were mechanically barren. Capsule colts are as a rule stronger than the natural service colts under old methods. I will use a microscope this year and expect a much larger per cent.—R. A Wright, Woodson County, Kansas.

March 27, 1914.—I have had good luck breeding with capsules. I have used them three seasons. I have had to show the people but they are gradually coming to it. I bred 300 mares last year and got a good per cent of foals of which one half will be capsule colts. I have had lots of opposition by other horse men that did not get enough mares to breed to need to breed with capsules. As to the colts, you can't tell a capsule colt from one that was got by the natural service. I have never had a cripple or deformed colt got with capsules.—J. N. Berry, St. Francis, Kansas.

April 1, 1914.—I could only add my testimony to that of hundreds of others in regard to the capsule breeding. I have settled mares that could not be foaled by the natural service and got as good a colt as there is in the country. There is positively no difference in the foal no matter if it is produced by natural or artificial means. The main things to consider are cleanliness, the right temperature, a mare capable of being fertilized and fertile semen.—Arthur Colegrove, Girard, Kansas.

March 31, 1914.—I will say that I have more faith in capsule breeding than I have in natural service on shy breeding mares, if it is properly done. I have got mares in foal with capsules when I didn't get them in foal with natural service. The colts are just as good with capsules as natural service. If I had my way I would not breed any way only with the capsule. I will have about twelve capsule colts this year, the best I have done yet. I bred three mares and got two in foal.—A. M. Larson, Sloan, Iowa.

March 26, 1914.—I've used the capsules the past year with entire satisfaction to both myself and patrons. Would not think of doing without the artificial method. Colts are equally as good and it is a great saving on the sires.—G. D. Landis, Newton, Kansas.

March 27, 1914.—I think the microscope the most essential in horse breeding, next to a healthy mare. For advertising it has no superior. It is simply great to be able to show the patron live germs. It convinces him on the spot. Its value cannot be estimated in dollars.—W. F. Dusell, Montevideo, Minn.

March 28, 1914.—I would prefer capsule breeding on shy breeding mares.—J. F. Newton, Macon, Mo.

March 31, 1914.—I dissected a diseased mare at my barn. The work was a pronounced success. Over 200 interested farmers were present. I have been telling my customers their mares are diseased, but this time I showed them. I gave twenty-seven reasons why two-thirds of the mares in the United States are not colt producers and twelve reasons why the capsule system is better, surer and safer than the natural system. We had capsule colts and a lot of capsuled mares, heavy in foal, present. I had twelve mares present at the regular breeding March 30th, and bred nine of them. I attribute my success in breeding to the "Graham Scientific Breeding School" and would point all breeders to your school for success.—S. S. Mouse, Lacygne, Kansas.

March 29, 1914.—I had one mare that has been bred to every horse in the country for the last three years without success. She came to me and one capsule settled her. About a month ago she had a pair of twins. My brother has a mare that we have always had to give from three to four covers to get her to settle and last spring she settled from one capsule. I had another mare that had been bred for the last three years without success. I examined her. She had sores all over the inside of her vagina. I would not breed her and told him I didn't think there was any use to breed her, but I gave her one treatment, then bred her with a capsule without results. I had lots of kick on the capsule breeding and lost some of my best mares last spring on account of some fellows, that always know it all, starting a big tale. I let them harp, and bred the ones that gave me a trial. I had good success with what I bred as I had a three-year-old colt and did not want to run him hard the first year.

I am well satisfied and have a large run in view for this spring. I am intending to attend the Breeding School another term as soon as I can get away.—A. S. Lay, Tyler, Minn.

THE SHIRE CROSS FOR RANGE MARES.

To the American Breeder:—As there has been so much comment on the Montana subscriber's inquiry, I thought I would give my opinion as to what is the best type and breed of draft horse to cross on small range mares.

I think the Canadian subscriber hit the nail on the head the squarest of any of them when he says to cross them with a Clydesdale, but I am partial to the Shire for improving range horses; that is, for the quickest returns. I have seen Percheron, Belgian, Shire and Clyde crosses, and the Shire always brought the quickest returns. Of course, it depends on what kind of a horse he has been using. If he has been using a Percheron, I would advise a change of breeds. If they are just common Broncho mares he would never regret the purchase of a good Shire, not too heavy, say about 1800 or 1900 pounds, of the real English type with plenty of fine, silky feathers, and plenty of good bone.

The Ohio subscriber may be an old hand at the breeding business, but I could see that he has quite a little to learn about the improvement of western horses when he advocated the cross of a saddle stallion or a Morgan horse on these small mares. The west is too full of such horses as would the offspring be of a saddle stallion or an 800 or 1000 pound broncho mare. There is always a demand for draft horses and if the Montana subscriber will use a good Shire, instead of a Saddle stallion, Morgan or a jack, in the course of seven or ten years the horse buyers would be looking for him instead of him looking for the buyer. —Elmer Rosser, Gregory County, So. Dak.

AN EDUCATIONAL POSTER.

We are making up a limited number of the most instructive and interesting illustrated posters we have ever seen. We are making them especially for those of our readers who are securing subscriptions for the American Breeder. These are suitable for putting up not only in the barn but in the bank, post-office, store, school or anywhere where intelligent people interested in good farm animals are likely to see them. We have had a number of inquiries from schools for a part of the very information these posters contain. At the bottom of each poster we will print the name and address (as our representative) of the man we send them to. Any reader who has been getting subscriptions for the American Breeder, or will begin getting such subscriptions, can get a set of these posters by asking us for them.

All we ask is that he put them in good places, such as we have indicated, and make the posters help him get more subscriptions for the American Breeder, and in that way help his own business as well as ours.

The posters are printed on heavy, high quality, plate-finish paper, about 22x32 inches, and beside the reading matter carry more than 50 pictures each. It will help any man's business to have his name at the bottom of a poster like this, properly displayed. When writing for posters ask for only as many as you agree to put up in good positions. Not over six sent to any one man. The sooner they are put up the more good they will do you and us. Just write a postal card saying, "Send me .... posters with my name and address printed on the bottom. I will put them up in good places and get you as many subscriptions as I can.

BREEDING CHARTS YOU CANNOT BUY.

A set of breeding charts showing the male and female genital organs of horse or jack stock, is something every breeder needs to have in his barn or office. We have had such a set prepared—three charts, rolled in a pasteboard tube, so they will carry safely. They are not for sale, but we will send the set free upon request, to everyone who sends us in ten subscriptions at the special 25 cent rate for one year, exclusive of the three summer months.

TESTING BLOOD FOR DOURINE.

To the American Breeder:—In answer to your query about dourine, I will send a clipping from the Cheyenne Tribune. Other than what is given in this article I have no information concerning it. Several cases of abortion are reported in the eastern part of the county (Laramie), but very few near here.—R. B. Anderson, Laramie County, Wyo.

Dr. B. F. Davis, the state veterinarian, arrived here last night from Gillette, being on his way to Buffalo, where he is to inspect some cattle afflicted with a strange complaint. Dr. Davis will go to Buffalo tomorrow morning.

"I have found the condition of farm stock in Sheridan County to be very good," said the veterinarian this morning. "We have been inspecting some of the cattle in this region recently and have discovered but one small herd that was troubled with the scab. Of contagious abortion, I shall have something to say later. On the whole, conditions are excellent here. After a few days in Buffalo I expect to return to Sheridan and will then return to Gillette."

"At Gillette we are working with the government officials on the dourine investigation. There are three men now there and as many more are expected soon. We have just received the results of the tests made on the blood of 135 stallions, the samples being obtained some time ago and forwarded to Washington. Of the 135 stallions tested, only twelve were afflicted with this venereal disease. We are now taking samples of blood from between 700 and 1,200 mares that may be afflicted. The tests for dourine are very elaborate and are made in the laboratories in Washington. It will probably be necessary to destroy all of the afflicted animals. At present there is no law for the remuneration of horse raisers whose animals are killed by the state officials, but I intend to recommend to the next legislature that such owners receive about two-thirds the appraised valuation of the animals destroyed. At the same time I shall also probably recommend that cattle owners receive some money for their cattle that are killed because afflicted with tuberculosis."—Cheyenne (Wyo.), Tribune.

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COOK & BROWN, Lexington, Ky.

WANTS LESSONS ON OBSTETRICS.

To the American Breeder:—Another interesting subject I would be glad to see your valuable paper take up is the different presentations (at the birth of colts, calves, etc.), with which the breeder and farmer have to contend. Almost every spring there are valuable colts and calves lost that would easily be saved if this matter was understood as it should be. Lots of times we do not have time to get competent help until we have lost our, as these cases do not always wait for the veterinary. So let us have the description and best treatment for correcting the same. I think it will be a subject that will be appreciated by most of your readers and may save some of them valuable stock. J. J. Campbell, Childress County, Texas.

The Prevention of Navel Ill

Navel infection in the new born is far more frequent than is generally recognized by stockmen. The losses sustained yearly from the several diseases that may be contracted through the lacerated navel cord is something enormous. In fact, in some localities the disease this season appears to be unusually severe and we predict bitter disappointment and extensive financial loss for those who have not given this disease close study and taken advantage of those effective measures that will prevent the disorder.

The navel cord may be briefly said to be simply an avenue through which certain blood vessels pass from the foetus to the envelopes attached to the wall of the uterus, and it is through these vessels that the blood of the foetus passes in its particular round of circulation. In addition to these blood vessels there is a tube connecting with the bladder that permits of the escape of the urine of the foetus during its growth and development. During or at birth the cord is torn asunder, creating a wound with these open vessels exposed. Inasmuch as the foal lies down a great part of the time after birth the position it assumes gives a most excellent opportunity for infection to occur and of a very grave character for the reason that the organisms may gain immediate entrance to these several vessels. In the event the germs find their way into the tubes communicating with the bladder they would set up an inflammation of those parts and very likely would result in the foal persistently urinating through the navel. Nearly all cases that urinate in this way are infected and it is the infection that causes death of the colt and not the mere fact that the urine escapes at this point.

Probably the infection is more serious when it follows the course of the blood vessels mentioned, for the reason that unless these vessels become plugged with an impenetrable blood clot the infection will shortly reach the blood stream where it will have the opportunity of being promptly distributed to every part of the body through the medium of the blood.

The symptoms of such infection are a disinclination of the foal to nurse; it is stupid and dull, with stiffness of gait. The amount of fever present is governed by the severity of the infection. Frequently the navel is noticed to be swollen, glistening and exudes a watery substance or pus.

One can not judge the severity of the affection by the appearance of the navel for the reason the germs may penetrate deeply, in which instance more harm is done than where there is great local disturbance noticeable. It will be seen that when the germs have gained access to the blood stream that they have the opportunity to float to any part of the body. Seemingly they appear to affect the tissues in the neighborhood of the joints most, but may form abscesses in any part of the body.

Localizing about the joints the germs cause swelling of the parts resulting in sudden and great lameness. There is a tendency for the disease to shift from one joint to another, leading some to associate it with rheumatism. Occasionally the swelling at the joints will become so great that the tissues will give way and permit of a discharge of pus mixed with the joint oil. Such cases nearly always die. Navel disease is a very fatal malady, partly because it attacks young animals having little power of resistance and partly for the reason that the disease, almost before being observed, has reached those vital parts where it is beyond the reach of medicine.

Veterinarians as a rule do not welcome the treatment of these cases, for the reason that their very nature makes the majority of them hopeless from the start. Besides should skilled treatment save the life of a valuable colt there is always danger of its being permanently crippled for the reason that the surfaces of the joints become diseased in a manner so that they never fully recover.

There is only one way to successfully handle navel infection and that consists in its prevention. This paper has from time to time emphasized the importance of having mares foal in box stalls that have been made scrupulously clean and kept bedded with nice, bright straw. The infection is usually contracted within a few hours after birth while the cord is moist and every one who has observed the behavior of these cases has noted that the danger lessens as the cord becomes dry.

In undertaking to prescribe agents for the prevention of this trouble we have met with no end of complaints from our patrons.

First, there is the uncertainty of getting the proper drugs from the druggist. Only recently we were in a locality where navel ill was very prevalent and undertook to have a prescription filled for a powder suitable for this preventive treatment. We were informed by the druggist's clerk that they did not have all the ingredients in stock. The expense of the prescription to the owner would have been, according to the druggist's estimate, $1.20. Even at this expense the powder would have been delivered in an inconvenient and wasteful paper package, and possibly not thoroughly compounded. The very nature of preventive treatment demands that the remedy be always on hand in shape for convenient and immediate use, and so perfectly prepared as to be effective.

In navel ill, as in most ailments where prevention is the only successful treatment, the time for prevention passes quickly and any one of the difficulties we have encountered in getting a remedy made up at local druggists is sufficient to delay or interfere with treatment until too late.

Seeking the way out of this difficulty in consultation with the best authorities, we have received a proposition from a manufacturing chemist to furnish the powder at wholesale rates, carefully compounded according to our prescription, and put up in serviceable metal containers, perforated like a pepper box for dusting it on. The price made (on condition that we guarantee the sale of a certain number of boxes—which guarantee we have given, knowing the widespread need of the remedy) allows for the expense of handling and enables us to deliver by mail, postpaid, to any address in the United States, one of these boxes at 50 cents, or less than half what the local druggist would have charged us for filling the prescription. Each box contains powder enough for the treatment of ten colts (or calves—the treatment being equally effective for either) and directions for its immediate convenient use will accompany each box.

With the powder put up in this way it should be a very simple matter to carefully strip the fluid from the cord with clean hands and thoroughly dust the cord with the powder. This treatment should not only destroy the germs but will dry up the cord, which is equally important. Here is a matter in which stallion owners can make a profitable campaign of education with their mare owners, and by pointing out to them the necessity of preventing the disease, rather than wasting valuable time trying to cure it, they will not only render an important service to the owners of the mares but will just as certainly make their own business better.

In giving this remedy to our readers (at less than it has cost us—considering the cost of our investigations), we must urge the one point that is vital to the success of all preventive treatment, namely, that it be kept on hands at all times and that it be used promptly and thoroughly according to directions.

Orders for the remedy (we will call it simply Navel Powder) should be sent direct to the American Breeder, accompanied by 50 cents in postoffice order, stamps or any convenient form, for each box of powder desired. The powder will be sent only to subscribers to the American Breeder.

The foregoing article appeared in these columns early in March. Since that time a great many new subscribers have been added to our list and we have received from them so many inquiries on this subject that we reprint the article in their behalf.—Editor

"YOUR PAPER IS WORTH $10 A YEAR."

To the American Breeder:—I see your answer to inquiries on the price of the American Breeder. I don't think a man is interested very much in the stock business that won't pay one dollar for a paper three years. If a man is not interested enough in the paper to pay one dollar for three years, I don't think he would be interested enough to read it at any price. I think your paper is worth $10 a year to a man in the stock business if he will read it. He wants to read every paper and not miss a single copy in the year. If he misses June, July and August he will miss something that is worth the price of the paper several times. This is rather a long letter for the first time. I could write you a dozen sheets and then wouldn't be done.—W. F. Cricks, Putnam County, Ind.

ADMIRES MORGANS BUT RECOGNIZES DRAFTER'S MERIT.

To the American Breeder:—I notice on page seventeen of March 20 issue of the American Breeder that Mr. E. A. Rickard is contending that the Montana breeder still stays in the light horse business. Perhaps he may be right, but if I am not mistaken he is wrong to a certain extent. Mares weighing 1,000 to 1,100 pounds, I would certainly breed to a pure bred draft horse. Some of my patrons have bred 1,100 pound mares to my 1,800 pound Percheron horse and have some good flat-boned, square-made animals that will develop to 1,300 pounds easy. A few more crosses of draft blood will make a profitable animal. In this section of country a 1,300 pound animal will sell for much more than anything we have in the road or saddle type.

The smaller type of mares, 800 pounds, if bred, should be to a good Morgan horse. As to my opinion, the Morgan has more horse than any other breed wrapped in that much skin, but it hasn't the size and weight that will bring the price. The heavy drafter sells for a big price without being city broke and waiting for a man that wants a light horse. The mares can take care of draft foals if properly handled. A good supply of good feed at the right time, with grass and plenty of water will surprise men on this light draft stuff.

In this section of country there are a dozen sales for a good drafter to one for a light horse with the same conformation. I believe that is the trouble at the present date; there are too many people breeding light horses and place them in a draft horse's position. I find that there is always a good demand for draft stuff at a good price. An average good graft horse will cash out for $200. The average good light horse runs around $125 to $150 and have to be broke at that. Now which is more profitable?—L. M. Escue, Shelby County, Ill.

Partially Personal

Changing the subject; how would you like to be that horse—the one our gentle readers shot so full of holes in the last issue?

Dr. H. W. Wiley, the famous pure food advocate, claims that his 2-year-old baby speaks Latin as well as English. Most babies talk Latin before they are two and all talk Greek before they are one. Dr. Wiley can rest satisfied that he has a nearly normal baby.

G. E. Clark, breeder of Percherons and Galloways, at Silver Lake, Kas., has been chosen secretary of the Topeka, Kas., fair. This is a good move. Mr. Clark's home is in Topeka.

In the San Luis valley of Colorado where it has been the custom to contract the wool while it is still on the sheep, the price paid this year is a little higher than that of a year ago—which (I take it) means that the "bark" of free wool was worse than its "bite."

"Must Protect Salmon Fish," says a headline in one of our "agricultural newspapers." But what about our finny favorites of the corn belt "Cricks"? Is there no protection for Catfish Fish?

We suggest as a sequel for the "National Hero Series" Budweiser ads which some of the "moral and agricultural guides" are publishing, a series of photographs of barrel house wrecks, showing what "Bud" will do for either hero or hobo when he has a good chance.

The Idaho Agricultural College News now comes to this office—a good combination of the former "News Letter," issued by the Experiment Station, and "The Idaho Country Life," put out by the college. Agricultural firms in that territory are giving it advertising patronage.

Nevertheless, I maintain, that with the few exceptions noted that hoss was a fair to middlin' old plug.

There is nothing like modern agricultural statistics to cheer a fellow up. Last fall we thought there had been quite a drouth and crop shortage, but with each succeeding "estimate" the harvest seemed to increase until finally along about New Years the Kansas City Weekly Star printed a statistical story under the heading "Good Crop Year in Kansas." We believe in being as cheerful as possible about such things, but (operating on the basis of that headline) where is a fellow going to get words to describe present wheat and pasture prospects.

If you want advice on any subject don't hang back about asking for fear no one will heed your request. Did the "Montana Subscriber" have to go hungering and thirsting for advice once he let his wants be known?

In his capacity as Shorthorn "field man," Cal. Kinzer made an official visit to Kansas City to attend the Central Shorthorn Breeders' Association meeting and sale. Mr. Kinzer's headquarters are with the other Shorthorn officials in Chicago. His older brother, Prof. R. J. Kinzer, is secretary of the Hereford Association.

C. C. Williams, a farming expert, writer, speaker and newspaper man of experience, has editorial charge of the Oklahoma Farmer-Stockman. Mr. Williams is one of the incorporators of the International Dry Farming Congress.

Questions and Answers.

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

909—ACID CONDITION — I bred a re today and caught a little semen semen pan, then extracted some se- n out of the uterus. When I exam- ed the semen under the microscope found the spermatozoa dead. Then xamined the little I caught in semen n and found it in a healthy state. I amined this mare before I bred her d she looked to be in the pink of ndition for breeding. Her eyes, nos- is and vulva looked nice and not too l. After I found the spermatozoa ad I took the mare's temperature; rectum it was 99 and in cervix it s 100. This mare was bred last year d failed to settle. If you can from s limited description, please tell me at killed the spermatozoa.—Okla- ma Subscriber.

REPLY.—This is an excellent test. e are glad to see our readers taking is much interest in their breeding erations. The soda treatment might ieve this condition, but a better an would be to use the saline solu- n once or twice, then use the soda eatment, after which she may be ed.

910—INJURED SHOULDER—I have three-year-old colt that was kicked the shoulder last September and re was a collar boil came. The erinarian operated on it and after- rd it healed and broke open twice. ashed it out with carbolic acid wa- until this last time and I have been tting blue vitriol on it. It is sore w and itches. Have I done right? at shall I do?—Iowa Subscriber.

REPLY.—Something is wrong with- or this wound should have healed. may be that the blow caused a eper injury than was at first sup- sed, or again possibly the opening de was not sufficiently large, the ternal wound having healed before e interior became sound. This en- gement should be opened up lib- lly and if diseased tissue is found thin it should be carefully dissected t. But little care will be needed erwards, provided the operation is ne in a clean manner beyong giving e wound an occasional dressing with ne mild antiseptic solution.

911—ADVERTISER FAILS TO GET PER—Please send me the last two ues of the American Breeder, as I re missed them for some reason. I re been getting the paper regularly about four years and do not wish miss any copies. Please let me ow if the fault was with the post- ice here that I did not get the pa- s.—Nebraska Subscriber.

REPLY.—Your subscription expired nuary 1, but as you had an adver- ement in the paper at the time you ntinued to get copies of the paper long as your advertisement ran. is is attended to by the advertising partment which sends copies of each ue to every one who has an adver- ement therein. Your advertisement pired with the issue of March 5, d after that we had no authority to nd you the paper of March 20 or ril 5. We are making this answer blic for the reason that just such es as this are frequent and some- nes some of our oldest and best ends become offended because the per stops. They have been subscrib- for several years and finally ad- rtisers, and as they get the paper gularly while their advertisements n, they do not notice that their sub- iptions have expired. The course follow in such matters is not of our n choosing but is the one required law, and we hope that no one will nk hard of us for it. We are mak- a subscription rate (three years $1) at this time so low that it ely covers the mechanical cost of nufacture and will appreciate hav- ing every advertiser take advantage of the same so that we may not lose the interest and co-operation of any advertiser when the advertising season closes.

912—SORE LEGS—I have a Shire stallion seven years old. The lower parts of his limbs are swollen. They raise up in little lumps, then break and get hard. They are over his legs the size of walnuts. He is lame and is falling off in flesh. What do you call it and can anything be done for him?—Iowa Subscriber.

REPLY.—Your description is very much like that of grease and inasmuch as you have a valuable horse, you should place the matter of his treatment in the hands of a competent veterinarian who can give the matter his personal attention. These cases are obstinate at the best and no doubt your animal will require internal treatment as well as local.

913—ANONYMOUS QUESTION—There is a horse in my neighborhood that gets about 90 mare colts out of 100 and only one-third will breed, and they are good ones, and the other two-thirds won't get in foal. Can you give me a reason?—Subscriber.

REPLY.—The party who sent in this question failed to sign his name or give his town. If the party who asked this question will give us full details we will gladly investigate this horse.

914—TEXAS STALLION LAW—Will you please publish the Texas stallion law?—Texas Subscriber.

REPLY.—You can hold the colt until it is five months of age. Any notary public can inform you how to proceed to prepare papers for attachment.

915 — USING THE AMERICAN BREEDER BINDERS—We received the binder O. K. and only wish we had had it four years ago when we began taking your paper. We put the papers in (described his method). Please tell me if that is the best way.—Iowa Subscriber.

REPLY.—The most important thing is to always punch the holes in the paper the right distance apart. Next in importance is keeping the binder laced tightly. (See caution pasted inside.) The method followed in this office, where several files are kept, is as follows: Open the binder wide, lay paper right side up on inside back cover, leaving proper margin at top and bottom; a good plan is to draw a pencil line across the inside of the back cover where top of paper should come. Push the back edge of the paper against the lacing strip, turn the strip back over the paper, and through the holes in the strip mark the places for punching the needles through. Then lay the paper face down on the front cover; turn up the back edge and punch needles through at places marked. Draw the cords snugly through eyelets in lacing strip, and one double turn in each fastener will hold them until the book begins to get heavy. The quickest way to make a good job is to follow this plan. A minute's work and you keep your papers even and all in place.

916—NUMBER OF CHROMOSOMES—In his excellent article on the "Fundamentals of Breeding," Professor Vaughan says that the germ cells contain only one-half as many chromosomes as the cells of the body. What

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Do You Know Horses

Here is a book that tells you all about the anatomy of the **horse and every other domesticated animal.** Moreover, it contains nearly **600 superb illustrations, many of them full page** and nearly **100 in colors.** It is a book of 826 pages, size 7x10 inches. It is used in every veterinary school in this country. You cannot treat a horse, you cannot breed a horse properly unless you know the anatomy—how the animal is put together. Get this work.

By **SEPTIMUS SISSON,** S.B., V.S., Ohio State University. Cloth, $7.00 (which includes mail or express charges).

Circular **FREE** on request

W. B. SAUNDERS CO.

Philadelphia, Pa.

Stallion Service Record Book

This book has 200 pages like the specimen page in this ad. It is substantially bound with a good, strong waterproof cover. It has 20 index pages for keeping the owners' names in alphabetical order so that any name or mare can be found quickly.

The breeding contract at the bottom is the strongest possible kind of a note. It is a big help in making collections, as nearly every state has a law for the collection of labor debts without exemption, and this is a contract to pay for services rendered. Before it is signed run a pencil through two of the lines in the contract, leaving the line that makes the kind of a contract you want. Many will sign a contract who would refuse to give a note.

This book has a calendar and a gestation table. It can be used for several sires without carrying more than one book. This is the most complete and up-to-date service record book printed. It is a nice size and can be carried easily in any pocket. Every breeder should have one. After improving it for several years, the result is this most satisfactory book. A complete new edition is just out. Although this new book has double the capacity of those offered heretofore, it sells at the old price. It is not bulky, as it carries no advertising or other unnecessary matter. It will be the standard record book used by the leading breeders.

If you are not satisfied with the book or do not consider it the best and cheapest on the market, return it and your money will be cheerfully refunded. The price is 50 cents; six for $2.75; postage prepaid. Send all orders to the

GRAHAM PUBLISHING CO.

225 West 12th St., Kansas City, Mo.

Sire Lucifer
Mare Belle Color Gray Age 6
Marks Left front foot white
Womb {Closed / Healthy / Loose} Height 16 hands Colt {Yes / No}
Mare Owner John Brown
P. O. Kansas City, Mo.
Capsule

DATE BRED.

Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1									
...	...	...	...	...	...	...	...	...	...
22									

RETRIED

	1st								
...	...	...	...	...	...	...	...	...	...
	22								

BREEDING CONTRACT

$ 15.00 Date Feb. 1, 1914

For services rendered, I promise to pay (fill in with stallion owner's name)
_____ or assigns fifteen dollars
~~When above described mare is known to be in foal~~
~~When above described mare delivers a living colt~~
When colt of above described mare stands and sucks
or before mare changes ownership, mortgaged or leaves county.

Signed John Brown

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Above shows exact size of page and the way to properly fill out the blank for one form of breeding contract, scratching out extra lines.

is his authority? Or is he the discoverer? If this is a known fact it has certainly been demonstrated quite recently.—Ohio Subscriber.

REPLY.—As usually is the case with information given out by this publication, Professor Vaughan's information as to the number of chromosomes in germ and body cells is strictly up-to-date.

917—LENGTH OF GESTATION — Does a mare carry a mule colt longer than a horse colt?—California Subscriber

REPLY.—There is very little difference in length of gestation for either mule or horse colts. A few individual cases may be noticed where one kind has been carried longer than the other.

918—SUSPICIOUS CASE — Can you tell me what is the matter with a horse when he runs out of his nose and swells under the jaws and breaks open and shows signs of swelling on his body? What good remedy can I use to prevent sickness among horses?—Minnesota Subscriber.

REPLY.—Have a graduate veterinarian look this animal over carefully for you have recited some of the symptoms of glanders and you cannot afford to take any chances of having an infectious disease of this character in your herd. Do not neglect this.

919—GETTING THE SEMEN—I have had a good deal of trouble about getting the semen from the mare after the service with the horse or jack. Please give me some information on that line.—Texas Subscriber.

REPLY.—You should have very little difficulty in getting the semen, either from the uterus or vagina of the mare with the Natural Temperature Semen Extractor.

920—INJURED BY A KICK—I have a two-year-old colt that got kicked on the inside of the hock joint about eight or ten days ago. The hock was swollen to twice its natural size. Have been bathing it twice a day with hot vinegar and salt. The swelling has gone down about half or a little better, but it seems like I can't reduce it any more. I am afraid it might form a spavin. Have been thinking some of applying a blister but would like some advice on the matter. The swelling was quite soft but gets more solid as it goes down. The most of the swelling is toward the lower part of the joint. The whole leg is swollen a little from hock to fetlock. At first the swelling extended above the hock some and the hock looked like it was capped. These parts look about normal now.—South Dakota Subscriber.

REPLY.—We believe you will obtain better result, for a while at least, by applying the following twice a day: Gum camphor, one dram; oil of sassafras, one ounce; oil of origanum, one ounce; tincture of iodine, six ounces; alcohol sufficient to make one quart. Mix all together and apply to parts, rubbing in well. You must not expect to reduce the swelling rapidly from now on for the reason that it is quite likely a portion of it is due to the distended capsule of the joint. Give the colt moderate exercise by permitting it to run in a lot. It should not be with other stock if lame.

921—WHY MULES WON'T BREED— Is there any known reason why a mare mule will not breed to a stallion?—California Subscriber.

REPLY.—Numerous reasons have been given why mules won't breed. Life is too short to deal with a question of this kind. We claim that no mare mule has ever produced a foal. That fact should be sufficient reason why this subject should not take up much space.

922—DIFFICULTY IN FARROWING —One of my customers has a sow that brought pigs six weeks ago. She delivered four and the third day she delivered one dead pig and the afterbirth. At times she is lively and eats with good appetite. Every morning when she comes out of bed she is dirty with bloody looking discharge. For two or three weeks there was sometimes small hunks of rotten looking stuff. During the day these spurt out and at times just drops a substance; sometimes clear water; at times a little thicker; at times it is bloody. She seems to be better. What can I do for her?—Mississippi Subscriber.

REPLY.—It is quite likely that the sow has retained a portion of the afterbirth and probably will get along quite as well as if you undertake to do something for her. Such cases when treated should be irrigated with sterilized water to which a small amount of some antiseptic has been added. Everything relating to the work should be conducted with scrupulous cleanliness.

923—STALLION REFUSES TO LIE DOWN—I have a large stallion that does not lie down in the barn. He has a large box stall. What can I do to get him to lie down?—Illinois Subscriber.

REPLY.—Your horse has gotten fast in the barn by rolling over. He is now afraid that when he lies down he will get fast again. The proper thing for you to do is to build him a good, big yard where he can run out and roll and take his proper exercise. He will rest sufficiently during the day time. You should have a plan by which this stallion will not get fast in his box stall at night. Some breeder ought to know how to do this. Who can tell us about this?

924—HOOKS—I have a jack colt that has the hooks in both eyes. Please tell me what to do for him.—Missouri Subscriber.

REPLY.—You have asked a peculiar question. In the first place there is no such disease as "hooks in the eyes" of horses or asses. It may be that your animal has some disease like tetanus that causes the membrana nictitans to become more prominent than usual or the animal may have some localized inflammation that causes it to protrude more than it should. We are unable to be of any help to you until we have a more detailed account of the symptoms. In the meantime forget the hook notion.

925—FEEDING A JACK — I have a jack 11 years old. Bought him as a three-year-old; has rubbed his hair off in patches; has been changed to different stalls, also in different barns, but rubs every winter and quits when the weather gets warm. The jack is not a strong feeder but is somewhat irregular about his eating. Have fed mostly oats and mixed hay this winter but can see no difference from when I fed corn which is his favorite grain. How can I feed him to keep him eating heartily through the breeding season as he nearly quits eating at times when we want him to do his best?—Illinois Subscriber.

REPLY.—Arrange for this jack to get outside where he can have access to a good place to roll. Spade the ground up and rake it down so there are no clods in it. Let him roll as often as he cares to; keep his bed in a good condition all the time. This is very necessary for some jacks. Be very careful about watering him at regular times. Use the same vessel so that he will not be afraid of a new bucket. Keep plenty of salt where he can get to it at any time. You should arrange for plenty of carrots; this is good jack feed the year 'round. A limited amount at each feed will have good effect on this animal. Cut out the corn entirely except one or two ears at a feed during the forepart of the winter. When his appetite seems to fail get a little green stuff of some kind and feed him very sparingly to begin with as it might cause digestive disorders. Gradually increase the green feed until his appetite is restored for oats, then stop the green feed. Soak his oats from one meal to the next in a clean galvanized bucket. Be sure to rinse the bucket out each time before putting more grain in it so as not to have any sour feed. Sprinkle a little salt on the oats, but do this very sparingly. One-fourth of the roughness should be good alfalfa.

926—MARE HAS NO MILK—I have a customer that has a fine mare that gets with foal at one service and carries it to time, and when she has it she has no milk in her bag at all, and never has.—Indiana Subscriber.

REPLY.—Such a mare is not apt to be a very profitable breeder inasmuch as it necessitates raising the colt by

(Continued on Page 14.)

ADVISES MORGANS AND TELLS WHY.

To the American Breeder: I see by the last issue that the Montana man is not just satisfied with what he got from the readers of the Breeder. Now I have been in the stallion business for forty-five years, have bred draft and Morgans mostly, have one of each standing for public service. The Percheron is my favorite to raise, to make money out of the colts, but not from 1,000-pound mares; the difference in size is too great. The gelding would be nothing but expressers or light draft and plain workers. And if he will look at quotation he will see that they will not pay. To breed to a trotter he would get no speed from his mares, and that would be a loss. To breed to a saddler would be the same; a small draft horse or a trotting-bred horse that can't trot, or a saddle-bred horse that can't saddle, are all alike as far as profit is concerned; none of them will pay for the raising. Those are three splendid horses and their products are money makers, when bred to mares of the same characteristics; but not on range mares.

Now I have told him what I wouldn't do; I will tell him what I would do. I would buy a 1,250 or 1,300-pound registered Morgan horse. I would not breed to a horse that was not recorded in a stud book of his breed. Now, I will tell him why I select a Morgan horse for his class of mares. First, because he is a line bred horse, and has been bred on the same line for over one hundred years, and will come nearer breeding a uniform class of horses, on this type of mare, than any horse living. Second, because he is a hard-boned, hard-fleshed horse, and his get will stay sound. Third, because he is an easy keeper and a good rustler; therefore is well adapted to the range. Fourth, because he will increase the size of his get over their dams, and not loose his own conformation. Fifth, because the government is looking for those kind of horses, and will pay from $175.00 to $200.00 per head for them at three years old, and break them themselves. The smaller ones (there will be some, however, not many) will go south at a fair price. Now, so much for that.

Now, I want to thank the "American Breeder" for the benefit I have derived from the instructions it has given me in the stallion business in the last four or five years. I believe I have learned more in that time than in forty years practical business experience. And I want to say, I do not think any horseman can afford to do without it; I know I cannot. And I think the capsule system is the correct thing. The only trouble is with the mare owner in this county, but I think he will be all right in a few years.—F. F. Foote, Noble County, Ohio.

CLEVELAND BAYS.

To the American Breeder: I notice an article written by W. W. Carpenter of Anson County, N. C., who wishes the merits and demerits of the Cleveland Bay horse discussed in the American Breeder. As I am a breeder of the old famous Cleveland Bays and have been for a long time I will just "give my testimony." I have raised and bred and used them side by side with the draft and other breeds of horses. I have four full-blood mares and fillies and two stallions, one coming two-year-old, at the present time and for a general purpose horse, I don't think he has an equal; is also the soundest limbed horse I have ever bred. I have never seen one with any kind of a spavin or curb; is also a horse of great bottom, he will stand the heat of a hot day in the field and will not puff or pant like the draft horse will.

I have a full blood mare I am using on the buggy. When I need to I can drive her thirty or forty miles on Sunday and put her at work on Monday morning and it don't bother her. She is due to foal a colt in four weeks. They are good travelers on the road, fine of style and carriage and their uniform, bay color, makes fine matched teams. They are not as swift trotters as the Standardbred trotter, but are his equal if not his superior in endurance. They have large bone; strong cordy, flat limbs; the mares make good mule mares. The Cleveland Bay is not much before the horse breeding public at the present time as he is

TROTTING BRED STALLIONS

For sale. Four good ones, sired by Cleremont Director, matinee record 2:17. All are registered. Two are grandsons of Creseus. One is out of The Princess, 2:19¼ P., and 2:26¼ at the trot. The other is out of Jessie Mona (by Kewanee Boy and out of The Princess). Come and see them. Olathe is 22 miles from K. C. Frisco and Santa Fe main lines and hourly trains on electric line.

F. M. LORIMER, Mgr., Olathe, Kas.

Stallion For Service

Council Chimes 2:07½; pure bred license No. 1769.

A demonstrated speed sire; sire of Minnie Chimes 2:04½, and many others in standard time. Liberal terms on application. Write for pedigree and information.

I have a good French draft stallion and a big grey jack for sale.

DR. D. H. BIBENS, Larned, Kans.

REGISTERED MORGANS.

My Morgans are large; 15 to 16 hands and 1050 to 1300 pounds; have clean, heavy bone and possess all of the style and endurance for which the breed is noted.

Having bought Headlight Morgan to head a selected stud of The Admiral mares, The Admiral is now for sale. He is 15¾ hands high; weight 1250 pounds, and is the greatest all-round horse I know. I have 200 of his get on the place; part of them for sale.

RICHARD SELLMAN, Rochelle, Texas

PERRY MORGAN FOR SALE

Registered Morgan Stallion.

This is a fine specimen of the breed and am selling him only because I cannot develop him as he deserves. Foaled 1910; 1,130 pounds; 15¾ hands; shown 5 times; won five blues; registered; got by Sherman Morgan; dam Barbary, by Logan L., by Abdamb Allen, by Ethan Allen.

Price, $1,000 and cheap at that.

L. A. FLINT WABASH, IND

Black Hawk Morgans

For Sale. Ten registered black stallions; mature 15½ hands; 1,200 pounds. Mares and fillies from yearlings to mature ones. Describe what you want in first letter.

E. F. BROWN, DERBY, IOWA
R. F. D. No. 2.

For Sale

Two Morgan and one Percheron stallions; fine individuals and registered. If not sold at once will lease to responsible parties. Call at once.

Charles J. Beck, Chesterfield, Mo

TWO WHITE ARABIANS FOR SALE

A Mare and a Stallion.

Coming two-year-olds. They have no equals in breeding size, style and conformation.

No Trades.

W. A. CARLISLE, Cherokee, Okla

SADDLERS FOR SALE.

Registered stallions and mares; all ages. Also a few Hereford bulls.

H. A. GREENWELL,. Lakenan, Mo

EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Ponies for sale. W. H. Fulcomer, Belleville, Republic County, Kansas.

produced by only a few breeders in a small way and has not been imported of late years to the United States. But I have a copy of the "English Live Stock Journal Almanac" stating that the trade with the Cleveland Bays in England has been good. They have been exported at large prices to South Africa, Italy, South America and other foreign countries. He is prized just as highly in his native country (Yorkshire England) as he ever was. King George the Fifth has recently bought twenty mares and two stallions of the breed.

As to his faults he is like all breeds of stock and human beings, he is not without. First, you get hold of one that is too nervous and high-strung to get down to a stead pull. As he is of a hot blooded breed there will be some touchy snorters that would be runaways if not watched. Second, there is once in a while one that is raw-boned, rough-made, long-legged, the gangling kind, that will do more work than a mule but don't look good. —E. Pinkston, Chase County, Kas.

SADDLE STALLION BRINGS $1,500.

Jas. A. Houchin, of Cole county, Mo., reports the recent sale of Wm. B., a coming three-year-old stallion, sired by Astral King. The price paid was $1,500. James Graves of Jackson county, Mo., was the purchaser. Mr. Houchin had refused more money than this for the colt last year, intending to keep it for show as well as breeding. but an accident resulting in a blemish put the horse out of the showing business and it has gone to head a good stud of saddlers.

KENTUCKY SHIPS STOCK TO CUBA.

To the American Breeder: "We shipped on April 2nd, one of the biggest shipments of pure bred live stock that was ever sent from Kentucky to Cuba. There was three car loads, consisting of seven five-gaited stallions, four walk-trot stallions, a number of mares, geldings, jacks and jennets, Jersey cattle, Southdown sheep, Berkshire and Duroc hogs. A number of these were prize winners the past season at the leading fairs in the state, and many have been entered in the Cuban-National Live Stock Exhibit, which will be held in Havana from April 11th to May 2nd. J. F. Cook and Wm. Collins of North Middletown will be in charge of the shipment.—Cook & Brown, Fayette county, Ky.

TRAINING THE COLT.

To the American Breeder: We should familiarize the colt with man very early in life. Never hurt him, but always gently caress him. Give him an apple or something he likes, to eat, and it will surprise you how soon he will learn that man is his friend; and when frightened will run to you for protection, the same as he did his dam when quite a "babe."

Be very patient in haltering him the first time and when haltered don't stand directly in front of him and pull as though you were pulling a plough from under a stump. Gently caress him, which will soothe his highly tempered nerves. Then stand at his shoulder, first push him one way, and then the other, until he gets started off his feet. The first effort he makes to lead, caress him for it, and soon you can lay your hand on his neck, tap his quarters with a light whip, and he will trot off by your side, as big as if he were proud of his training. By this time you will know a great deal about his disposition.

Now the next step is to harness the young fellow. Be very easy and patient; let him feel the harness with his nose, and see there is no danger lurking about it. Then gently lay them on his back, no faster than he can understand it. Before he is hitched to a rig he should be taught the words, "Get Up," and "Whoa"; especially the later. If to be driven double, a good lively horse that responds readily to the words should be used; not an old plug that waits to be called on two or three times before he moves. Never drive him into anything that will hurt him; use few, but well understood words, in a firm, but calm tone; reward right, and rebuke wrong; he will soon go anywhere you drive him without fear, for he knows when in your care he is safe.

Yours for better colt training.—Chester Miller, Warrick County, Ind.

MULES SOLVED HIS PROBLEM.

To the American Breeder:—I won't offer advice to the Montana subscriber with the small mares, but perhaps my own experience with mares of the same class will be of some help to him in deciding what to do. I first tried raising cavalry horses with mares averaging 900 pounds and showing considerable of trotting blood. My first cross on these mares with a thoroughbred horse resulted in a uniform type of government horses, and the geldings sold satisfactorily. I tried four different stallions of the same breed, including their own sire, on the mares resulting from this cross and gave up in disgust, as not over ten per cent were of the right type to sell to any advantage although they made splendid saddle horses for range use. I tried the draft breeds next on the original bunch of mares and my misfit second generation but with little success, as I couldn't get them uniform enough to make it pay. I generally had a 1,600 pound head and a set of legs on a 1,000 pound body or else the reverse. I used both Belgian and Percheron horses and had the best success with the Belgian, but it was not profitable. By this time (four years ago) I had a badly mixed bunch of mares of no particular breeding, and figured that they were good enough to raise mules. And they are. Crossed with the right kind of a jack these mares, averaging 1,000 pounds in weight, will raise three-year-olds weighing about 900 pounds, if they are well wintered in the first year. The best market I can find for these mules is a sugar beet country at cultivating time, as a small, nimble mule travels down the sixteen-inch rows without tramping beets out, while a big wide-track horse destroys the row on either side of him. They sell for about $300.00 a pair if well broke so that they can be hooked to a cultivator. This last year was the first year I sold any but had no trouble finding buyers for them. The best part of the deal is, they are practically grass fat when the demand starts for them, which is quite a saving in feed cost over marketing in the early spring or late winter.

If your Montana subscriber tries this method he will find that his pony mares will, in a few years, have produced enough to buy a band of big mares if mule raising don't suit him. In fact, an average mule colt in this country will sell for enough to buy a good filley of the age and breed to develop into a 1,400 or 1,500 pound mare.—Lester Beveridge, Cheyenne County, Colo.

CAPSULE JACK MEASUREMENTS.

To the American Breeder: We herewith give the age and measurements of the jack colt "Eclipse" by Don Walker and out of "Garee's Darkness." We do not put him as a world beater, but we know he is one of the good ones and are proud of the fact that we bred him and bred his sire and dam; also both of his grandams.

Age, 20 months; height, 59 inches standard, 62 by tape; girth, 66 inches; shin, 9 inches; below hock, 9½ inches; arm, 19 inches; knee, 15 inches; hock, 17½ inches; foot at hair line, 14½ inches; ears, 32 inches; weight, 785 pounds.

He is a colt of good conformation and plenty of "ginger" and we think he comes pretty close to the right type of American bred jack as advocated by the American Breeder and demanded by the discriminating class of mare owners. He was got with a capsule, after his dam had been unsuccessfully bred by natural service at least six or eight times. Garee & Garee, Cleveland County, Oklahoma.

"BOOT" FOR KNUCKLING COLT.

To the American Breeder:—In the April 5th number of the 'American Breeder" on page seventeen, a Nebraska subscriber asks what to do with an eight-months-old jack colt that knuckles. I will tell my method and also experience in colts that knuckle. Take an old stiff saddle skirt or any very stiff leather, cut in length to extend from hoof to knee, large around enough after being well padded to come together behind and lace or fasten with about three small leather straps and buckles. Take strap iron ⅛x¾-inch, rivet on each side of boot, length of boot. One in front the same size or a little heavier will be better. Let the front iron extend down to toe of colt, then back under foot, then up just a little. Rivet on same as sides. Strap or lace on pretty tight. Take off every other day and rub legs good and put on again. See that the boot is not hurting in any way.

I am in the stallion and jack business, so I keep a pair of these boots for any who may need them in my neighborhood. O. W. Layson, Callaway County, Missouri.

SHOW THIS TO YOUR FAIR SECRETARY.

To the American Breeder:—As secretary of the Missouri Association of County and District Fair Managers, I am preparing a list of the county fairs, local colt shows, etc., to be held in Missouri during 1914, together with their official name, location, name of secretary and dates for 1914. In order to assist in completing this list, I should like each fair secretary with whom I have not corresponded to send me at the earliest date possible, the above requested information. To help your fair do this immediately—don't wait.—E. A. Trowbridge, Secretary of Missouri Association of County and District Fair Managers, Columbia, Mo.

SIZE OF A WESTERN KANSAS JACK.

To the American Breeder:—I am a subscriber and a reader of the American Breeder. I have read several letters about big jacks in Missouri and other states but have not heard much from western Kansas and will give one from there. My jack is 16 hands, 1½ inches high; 10 inch bone at smallest part of fore leg; 11 inches in hind leg; ears from tip to tip are 34 inches. He is active and well made and will not be three years old until the 15th of July. His sire was shipped from Iowa and his dam was a Kentucky jennet, but raised in western Kansas. —John C. Jones, Stanton County, Kans.

INQUIRIES FROM SIX STATES.

To the American Breeder:—Please find enclosed check for $2.80 for ad. We had inquiries from six different states. If we had not sold the horse just before the ad appeared we know we could have sold him through the ad we placed in your paper.—Proett Bros., Thayer County, Nebr.

VALUE OF ONE COPY.

To the American Breeder:—Enclosed find check for which advance my subscription according to enclosed coupon. I cannot do without the paper; one number is often of more value than the cost of the entire three years' supscription.—J. H. Howard, Stafford County, Kans.

Fine Kentucky Jacks For Sale



Will be in Hiawatha, Kas., about March 6th with a car load of fine Kentucky jacks for sale privately. Anyone wanting a jack call and see our stock.

Also have 40 head of jacks and jennets at our home, **Poplar Plains, Ky.**, for sale privately. Ages from one to four years. **SAUNDERS & MAGGARD.**

JACKS.



The kind all are looking for; large boned, black Mammoth Tennessee and Kentucky jacks; 2 to 6 years old; guaranteed and priced to sell; all broken and prompt servers. Reference, banks of Lawrence, 40 miles west of Kansas City, on U. P. and Santa Fe.

AL. E. SMITH, Lawrence, Kans.

6-JACKS--6 17-JENNETS-17

The jacks are three and four years old, and they and the jennets are all good stock. All black with mealy noses. I want to close them out this spring, and will make the prices right. **JOHN A. EDWARDS, Englewood, Kas.**

JACKS.



20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.

Phil Walker, Moline, Elk County, Kas.

MAMMOTH JACKS AND JENNETS.

Our specialty is herd headers. Have them as good as grow. 48 years a breeding stable, have succeeded because we use the best that money will buy. Satisfaction guaranteed.

G. M. SCOTT,

Rea, Andrew County, R. F. D. 2, Mo.

"WE HAVE WHAT WE ADVERTISE"

For Sale.



15 head of big black jacks; 3 to 6 years old; 14½ to 16 hands. Big bone, heads. The right kind.

Also some draft and saddle stallions. All priced to sell.

MILTON GUSTIN, Edgerton, Mo.

EXTRA GOOD JACK

For Sale. Coming 4 years old; 15¾ hands standard; weight around 1,100 pounds; black, with white points, nicely marked. Sired by Missouri King that sold for $2,000. Good enough to head anybody's herd of jennets. Come and see a good one; if you don't find him strictly good I will pay your expenses.

T. E. COLLINS, BELLEVILLE, KANS.

BLACK MAMMOTH JACK

For Sale. Coming 4 years old; registered; 15 hands standard; 16 jack measure; 32 inch ear; 10 inch bone; big feet; will weigh over 1,000 pounds; good breeder. Will sell worth the money.

R. S. SMART, Harrisonville, Mo. R. 5.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address

J. C. HUCKSTEP, Eolia, Pike County, Mo.



50 registered, big boned black jacks and jennets. Colts to 16 hands; big, stylish, good lookers; great mule jacks. J. H. SMITH, KINGFISHER, OKLA.

Questions and Answers.

(Continued from Page 12.)

hand. If she never has shown a disposition to give milk the chances are you cannot induce her to at this time.

927—LENGTH OF HEAT PERIOD—What is the longest time a mare will remain in heat?—California Subscriber.

REPLY.—Some mares never go out. Occasionally a mare stays in heat and will receive a service at any time during a period of several months. These are usually diseased mares or have an abnormal condition in one or both ovaries.

928—SCRATCHES—I have a Clydesdale horse that had a bad case of scratches last spring. I got these cured up only there are some blotches. Can you tell me something to cure them; he rubs his mane and tail. He is a great horse to paw in the stall. Any information will be greatly appreciated.—Indiana Subscriber.

REPLY.—Try the following mixture applying it twice a day: Sugar of lead, two ounces; zinc sulphate, one and a half ounce; rainwater, one quart. Mix all together and shake well before using.

929—VALUE OF A MORGAN STALLION—What would be a reasonable price for a well-bred Morgan stallion, coming five, perfect in disposition and perfectly broke to ride or drive single or double? I suppose weight around 1,050; is a jet black with star; sired by Flying Morgan, Jr., out of Blackbird by Herod. He is registered and is a beautiful horse.—Montana Subscriber.

REPLY.—Here is a question to which we would like to print replies from those of our readers who are familiar with Morgan horse values.

930—SALT AND FEED—What about giving salt to jacks and stallions through the breeding season? I have heard that they should not have any, also mares and especially jennets when being bred. Please state how much and how often, if any. Should jacks and stallions have access to grass through breeding season? If not, what amount should they have, if any? Are they more sure kept on good dry feed? If not, would it be good to cut and feed green wheat, rye, clover, etc.? What do you consider the best feed for jacks and stallions in the breeding season, corn, oats, bran, stock peas, sheaf oats, timothy and red top hay?—Illinois Subscriber.

REPLY.—All breeding stock should have free access to all the salt they want each day in the year. Particular attention should be given to this subject. Mares or jennets when kept away from salt a considerable length of time are liable to eat enough salt at one time to cause an abortion; especially jennets. They will not do this if they have it convenient each day. Let the stock regulate the amount by having a quantity of it convenient. The surest stallions are those which run on the range, but there are other conditions connected with range stallions that are not easily duplicated under domestication. Stallions and jacks may have access to green pasture in a limited quantity; they should never have enough green slush to cause digestive disorders. Ordinarily stallions kept on good, substantial feed will give the best results when making a heavy service. A little green stuff might not be injurious and in some cases a benefit, but it should always be fed sparingly to begin with. Oats is the best grain for breeding stock of any kind. Corn has *little* value for stallions or jacks. Timothy and clover, equal parts, properly cured and free from must or dust is good forage. Alfalfa one-third and prairie hay two thirds is also good roughness. The roughness should be slightly laxative. The oats should be accompanied by an equal part of bran by measurement, when the roughness is not of a laxative nature.

931—RUPTURE AT THE NAVEL—A farmer has a mare with a rupture of the naval. There is an opening about two inches long that you can press your fingers up in and he would like to know if it would be safe to breed her.—Colorado Subscriber

REPLY.—If the rupture is no larger than that described there is no particular danger in breeding a mare so affected.

932—BREEDING JENNETS—How do you tease jennets to tell when they are ready to breed? Should they be bred on same days as mares?—Iowa Subscriber.

REPLY.—Turn your jennet in the yard near the jack's stall; take off the bridle and turn her entirely loose, if she does not lay her ears back and open her mouth. It may be necessary to bring the jack out where she can see him. Ordinarily it is a good plan to have a fence between the jack and jennet unless one is ready to make a service. Some jacks forget they have a bridle on when they see a jennet. Jennets are sometimes hard to tell when they are in heat if they have a bridle on. There is a great difference in these animals. The heat period of a jennet is similar to that of a mare. but not quite as regular. Some jennets will not come in heat before 12 to 15 days after the colt has been born.

933—ABORTION—Will rye pasture injure mares heavy with foal? I have had three mares to lose their foals.—Oklahoma Subscriber.

REPLY.—It is quite likely that you have infectious abortion among your stock which is the cause of your trouble rather than the rye. If the animals have been on the rye continuously it should not be a source of danger, but if turned on it suddenly it might provoke a disturbance the same as any other green feed.

934—MOST PROLIFIC SIRE—Is a jack of the same age capable of throwing or siring as many colts as a stallion?—California Subscriber.

REPLY.—Ordinarily a jack is capable of siring nearly as many colts as a stallion under normal conditions. A jack is not usually kept in as good physical condition as a stallion. There are mares brought to the jack in most localities which are hard to settle, as the owners believe a jack to be much surer than a stallion. A jack, however, will stand a little more abuse and be more regular in his habits than the average stallion. There would be very little difference between the two as to sureness.

935—UMBILICAL HERNIA—I have a very fine two year old mare ruptured at the naval. She was ruptured when foaled and has failed to outgrow it, as some told me she would do. The rupture is about three inches long and hangs down about two inches. Please advise me how to cure her.—Wyoming Subscriber.

REPLY.—Nothing short of a surgical operation will meet this condition now. These cases are much more easily cured when young and you were not properly advised. If a colt does not get right by the time it is six months old it should be operated on, at which time nearly every case can be treated successfully. In a two year old you will need the service of a skilled man.

936—RANK SERVER—I have a stallion that I purchased last spring and am having trouble breeding him. He is fat and has had plenty of work on the ranch all winter. His wind is bad; am doctoring with a veterinarian who says his heart is weak; also has a high case of heaves. He blows hard when driven fast. He seems anxious to get at the mares but cannot make a service. At times he will enter the mare and kick up behind and get down. This horse is a valuable animal; a fast trotter; full of life and a beautiful looking horse; 11 years old. What can be done to make a breeder out of him?—Oklahoma Subscriber.

REPLY.—Lead a mare out so this stallion can see her. Get a bucket of water about body temperature to begin with. When he gets an erection push the head of the penis into this bucket of water as far as you can. Be very gentle with him and he will not object to this. Have more water handy and increase the temperature in your bucket; keep increasing the temperature until it gets good and warm. Give him two treatments of this kind every day for five days; then get a mare that is in good heat. Sprinkle some hay under this horse so he will be sure to urinate before you attempt to make a service; then have the mare in a convenient place so that you can bring the horse out and let him mount before the erection gets too severe. When the service is started let the mare take a step or two if she wants to walk; her movement will put all the muscles into action. If this is not successful put the horse in the barn; take the bridle off and let him release this erection, then try the performance again. The mare should be a tall mare, one with a long vagina. Make the trials far enough apart so as not to excite him too much or get him very warm. Do not give him any fast exercise. Dampen his feed before each meal.

937—JACK KNUCKLES—What can I do for my jack, one of his hind pastern joints is going forward and he walks on his toe? He has always set back well on his feet until about six weeks ago.—North Dakota Subscriber.

REPLY.—Examine the animal for strain or thickening of the back tendons. If such are found apply a good liniment such as the following to the parts: Tincture of iodine, three ounces; spirits of camphor, two ounces; alcohol, eleven ounces. Mix together and rub into parts well twice a day.

938—WANTS HACKNEYS—Will you please tell me where there are some breeding farms that have Hackney horses for sale, and also some firms doing business?—Missouri Subscriber.

REPLY.—The advertising columns of the American Breeder have always been open to Hackney breeders and importers who do a square business.

939—BONE SPAVIN—I have a five-year-old filly that got a kick last spring which caused a bone spavin. I blistered three times in two weeks which did no good. Last fall I took her to a veterinarian who gave me a blister (B. of mercury and vaseline, I think it was) and told me to apply by friction, which I did. He said not to work her for four or five days. I laid her off a week. During the winter I consulted another veterinarian who said the blister above mentioned was all right but she had to be kept in the stable for six weeks and carry water to her, which I also did, and blistered it every two weeks, rubbing it 15 minutes each time, and still it grows. She is not lame and has not been to speak of. What will kill it quick so that I can keep using her? Would you advise firing?—Washington Subscriber.

REPLY.—If the mare is not lame and has not been at any time worth considering, why all this trouble about treating it. Put her into slow, easy work just the same as you would any new soft animal and forget all about the bony enlargement. In the course of time it will improve by leaving it alone. Under no treatment can you ever expect to remove it entirely. If the animal was lame then we would advise you differently.

940—CONTAGEOUS ABORTION—Up here in some localities the mares are losing their colts after they are seven to nine months gone. One man lost six colts; he had good mares, too, and seemed to take good care of them. In that neighborhood the farmers are losing lots of colts and all around through the country. Do you know of any cause for that? Is it something they eat or do you think they get kicked or slip while running out in the field? I find some barren mares in my breeding business; mares that are fat and doing fine and look all right.—Iowa Subscriber.

REPLY.—Contagious abortion is probably being spread in your district. The stallion is the principle means of conveying this disease from one mare to another. Do not allow your stallion to serve a mare that has lost a colt during the past few months. When a mare loses a colt the foetus and all litter should be burned immediately and the mare should be separated from healthy mares. It is not likely that this disease is conveyed from one mare to the other except by the penis of the stallion or jack or on the hands while they are being opened up. This is one of the reasons that every breeder should make a practice of thoroughly washing his hands before making any examination of a mare. You should adopt the capsule system for the benefit of your customers.

941—CHOKE—I have a two-year-old

30 Head of Jacks For Sale

From Two of the Best Herds in the State of Kansa

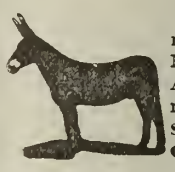
From 14 to 16 hands high; 2 to 6 years old. Nicely broken and good workers. Good serviceable jacks and prize winners. We won more premiums at Hutchinson State Fair last year than all other exhibitors combined. Everything guaranteed as represented. Write us your wants, or visit our farms.

H. T. HINEMAN & SONS, Dighton, Kas. **D. J. HUTCHINS, Sterling, Kas.**

MAMMOTH JACKS

For sale—Large, heavy boned, 15 to 16 hands high. Prices from $250 up. Located eight miles west of Cedar Rapids, Ia., near Fairfax.

JOHN HENRY, Fairfax, Ia.



300 HEAD of Colorado raised Jacks, Jennets, Mules and Brood Mares. All guaranteed. Prices right. **Lewis Swink & Son, Rocky Ford, Otero County, Colorado.**

JACKS—GOOD ONES

For Sale Right.

One 7-year-old; three 3-year-olds, and five younger ones coming on, sired by Highball, highest priced 2-year-old ever sold at auction. All black with white points, all got by excellent sires and out of extra good jennets. We breed them ourselves and sell them right—19 big jennets in our herd.

F. M. LORIMER, Olathe, Kas.
(22 miles from K. C.)

35 KENTUCKY MAMMOTH JACKS.



We will cut the prices from $100 to $250 on every jack in our barns for the next 30 days. Special prices on Percheron stallions, mares and saddle horses. If you want a bargain, come to our farms and write or wire us when to expect you.

COOK & BROWN, Lexington, Ky.

LOOK HERE.

Eight head of large Mammoth jacks; eight head of large Mammoth jennets; all young and right in every respect. Jennets in foal by 1200 pound jack.

One Percheron stallion, 3 years old, Dock Ungot 11836; will make a horse that will weigh 2100 pounds. Will sell at a bargain or exchange for land within 100 miles of Kansas City.

W. W. SHOTT, Lathrop, Mo.
39 miles north of Kansas City (The Owl Hollow Stock Farm).

JACKS FOR SALE.

We have 16 jacks for sale; all black with white points; lots of bone, size and quality; from 1 to 8 years old.



SCOTT & ABNEY.
Virden,
Macoupin County,
Illinois.

THE OLD RICHMOND JACK FARM.

I make a specialty of breeding big registered jacks, with lots of bone, substance and finish. These jacks are raised right and all good servers. I also have at all times imported and American bred Percheron stallions. Prices right. Terms to suit.

I have some extra good, improved farms for sale. Write for prices and terms.

W. H. SKIBINSKI, Richview, Ill.

Percheron mare. She had the distemper and about a week after the distemper left her she began to choke on hay but not on corn, oats or bran. She does it about every meal. At first I had to push it with a rubber hose; now I can get it down by running her around and putting linseed oil in her throat with a syringe. What can I do to stop her choking, and what is the cause?—Indiana Subscriber.

REPLY.—Turn the animal to rather short pasture where she cannot get very large mouthfuls of feed. In this way she will be inclined to chew better and the boluses of feed will go down in smaller amounts. In the course of time she will quite likely improve. Keep that piece of hose out of her oesophagus unless found positively necessary for you may cause an injury of the mucous membrane that may result in a permanent stricture.

942—THE ACID TEST—Please tell me how to test a mare for acid.—North Dakota Subscriber.

REPLY.—Blue litmus paper is sold in packages containing sheets about a half inch wide and three inches long. Place one of these sheets in the mouth of the womb and leave it there about half a minute. If it turns slightly red or changes color the mare should be given the soda treatment. If the color changes very much she should be given the saline solution two or three times.

943—CONTAGEOUS ABORTION — Is there any method of cleaning mares that have contageous abortion? The mares I have in mind are those mentioned in Question No. 703 in February 15th issue. Would you consider it safe to breed other young mares this season that have been and will be running and working with those same mares that have aborted? These are young mares that have never been bred before. I would like to get those older mares cleaned up so it will be safe to breed them again in 1915, if it would be possible.—Canada Subscriber.

REPLY.—Yes, but it should be done under the direction of an experienced veterinarian. We hesitate about advising laymen to engage in this class of work for they, as a rule, are not familiar with what is necessary to do the work successfully and can do a vast amount of harm. Methods wrongly applied may result in the death of animals or they may be harmed beyond repair. Such mares should be cleaned up as rapidly as possible. In breeding the young mares be careful that they are not bred to a stallion that has served a mare that has aborted. All mares that have at any time aborted should be bred with a capsule. In this way all danger of spread of the disease through this source is done away with and so far as settling the mares are concerned it is more certain.

944—A HARD HORSEMAN—A friend of mine has five good mares; ages from three to 11, which he bred to four different stallions last spring. These horses were all three years old but one, and he is 10; always been sure. He claims it was the fault of the stallions. He bred one to my colt, a three-year-old, and never returned her. He claims he bred some of these mares three times; some four times and none are in foal. These mares all look well. He says they eat good and are ready to work and he knows that they are all right.—Ohio Subscriber.

REPLY.—When you breed these mares use a microscope to test the semen. If the spermatozoa show good action then it is not the fault of the stallion. The owner of these mares will then be expected to take better care of his mares before he can expect any results. There are a lot of mare owners who have no conception of the methods of live stock production. If these mares are in a diseased condition they will need treatment. Each mare should be carefully examined.

945—WORKING BREEDING STALLIONS—Is it too much for a stallion to work in breeding season?—Ohio subscriber.

REPLY.—If your stallion has been doing heavy work for several months and is thoroughly accustomed to that strenuous labor, it may not affect him to continue the work through the breeding season. Ordinarily, even with this stallion, a half day should be sufficient. If your stallion has been in the barn all winter without any exercise we would not advise too much active labor through the breeding season if he is expected to make a heavy stand. A few miles of slow exercise will give better results for a draft stallion.

946—NAVAL ILL—I have a colt that already has the navel ill and would like your advice on it. This colt was foaled with a swelling at the cord as big as an egg. I used iodine and a powder on it right away. The cord dried up nicely and I thought it was doing fine until the colt was a week old and then the dry cord came off and this swelling proved to have some pus in it. We have a veterinarian here that pulls the cord down and puts on his clamps and cuts the cord off, taking a large piece of the skin off and leaving a big sore there to heal up. Is this the proper treatment. Now I have raised a good many colts and have had a few with navel ill and never lost one until last spring and it acted a good deal like this one. The veterinarian I had has moved away and I had his treatment but lost the one last spring and am afraid I will lose this one. I am so opposed to the skinning of the belly (I call it) that I have not called the other veterinarian and am using the same treatment I have always used, besides your powder. Please tell me what you think of cutting the cord off the way I described and give me advice as to treatment.—Illinois Subscriber.

REPLY.—The serious trouble that comes from navel ill is the infection within. By keeping up a good system of external disinfection one can minimize the amount of infection that may gain entrance. In the case of your colt, had the enlargement been cut into and drained and thoroughly disinfected, the chances are that the disease would not have progressed so much within the body. The method mentioned would be of aid, provided the infection had not progressed beyond the parts secured by the clamp

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947—NEW BEGINNER'S JACK—I am a new beginner in the breeding business. I bought a jack last spring and bred 33 mares and did not get a very big per cent with foal. It was his first season. He was three years old the fifth of July. He did his work well. I thought you might give me some instruction in the matter or tell me how a jack ought to be fed.—Kansas Subscriber.

REPLY.—A new stallion or jack is very liable to get a good number of shy breeding mares when they are first introduced. The owners believe that all the other stallions are not very sure and are anxious to try a new one. A careful examination is in order in your case. If you can give us some idea of your difficulties we will be glad to help you. You will find other answers on feeding jacks in this issue.

948—OLD WIRE CUT—On July 5th, 1913, I had one gelding weighing 1,400 pounds get cut on barb wire on the front side of the right hind leg between the hock joint and fetlock; cut to the bone, and about one month later I got out part of the bone about six inches long and got it healed over again. This horse has had no care since November, 1913, being running on the range. The sore is now filled out as far as it should be. I am now going to take him up. What would you advise me to use to promote the covering with skin and reduce the swelling? The horse is in fine shape and does not favor the sore leg at all. —North Dakota Subscriber.

REPLY.—Very little can be done to improve conditions as the animal has already had favorable treatment. A run at pasture with the exercise that goes with it is about the best thing that could be done to reduce the enlargement. The animal will always be blemished beyond perfect repair, and inasmuch as he is not lame you are now justified in putting him to work. In time the denuded place will scar over and no doubt the swelling will also improve.

949—FEEDING DUSTY HAY—Is it a good plan to dampen dry hay and pile it up over night to feed horses the next day, or feed it dry? Some say it is better to feed it dry, but I think if the hay is dusty they won't cough so much. —Ohio Subscriber.

REPLY.—Dusty or musty feed of any kind should never be given to high class breeding stallions or jacks. It is expensive at any price. If you desire to feed dusty hay you should take it out and shake it before giving it to your stock. Ordinarily it is best not to dampen feed of any kind for breeding stock unless there is some particular cause for it. When an animal is pampered by having his feed wet or soaked the functions of the digestive tract are liable to continue this demand. If the teeth are not in a good working order they should be attended to by the best veterinarian you can find.

950—ABORTION—I have a bunch of range mares weighing around 1,400 pounds. I bred these mares to 1,900 pound horses. They have been on the range all winter and doing well. I found one mare that died trying to foal and seven more mares aborted their colts. Some of the colts were due in one month and some in six or eight weeks. Is there such a thing as sympathetic abortion? Would some mares lose their colts watching another mare trying to foal? This bunch have been in a field where there was some flax and wheat straw, but very little. I have another bunch on the range that are heavy with foal and seem to be all right. I have never had a mare abort before and would like to know the cause of this. These mares lost these eight colts in less than two days.—North Dakota Subscriber.

REPLY.—Under no condition should pregnant mares mingle with those that are foaling either naturally or from accident or infection. Do not allow any of these mares to come into the presence of the bunch that is thus far all right. Infectious abortion is spread in several ways, one of the most conspicuous being through copulation with a stallion that has recently covered a diseased mare. You will need to be very careful in breeding these diseased mares after they have been cleaned up as they will be a great source of danger in the future. Under no circumstances should they be bred to the stallion direct, but the capsule method should be employed.

951—TESTING A JACK—We have a jack that is thought to be not a very sure breeder so we want to know if there is an instrument sold in Kansas City by which we can examine the semen of the jack and thereby determine if there is any life in it? If so, we would like the address of the parties who have such an instrument for sale, or in other words a method by which we can discover whether our jack is a breeder or not. We would like also to know how to successfully handle and care for a jack to get colts when we breed.—Kansas Subscriber.

REPLY.—The Kansas City Impregnator Company in this city is advertising a microscope by which you can test the semen of your jack. If the semen is fertile you will see little sperm cells that look very much like wiggle tails going in every direction. This firm also sell breeding supplies of various kinds used with jacks to increase the capacity and the per cent of foals.

952—WART—I have a coming three-year-old Percheron stallion that has a blood wart on his left hind leg between the hock and pastern, about the size of a dollar. It bleeds a little at times; does not seem to lame him yet. I would be pleased to have you tell how to treat the same.—Kansas Subscriber.

REPLY.—You should have a growth of this sort treated by your veterinarian for if it is not effectually removed it will be inclined to return and grow with renewed vigor, and in such a case may get beyond control of even a skillful man. You will be concerned in keeping down the size of the scar which means that the treatment undertaken should be successful from the start.

953—NUMBER OF SERVICES AND FRESH EGGS—I have a stallion nine years old and would like to know if two mares per day is all that he can serve and not hurt him. Also if fresh eggs would be of any benefit to feed him; also potatoes and carrots, during the breeding season.—North Dakota Subscriber.

REPLY.—Two services one day and one the next is about the limit for any mature stallion or jack for a great length of time. A sire may make more services than this but this is about the most profitable number that can be



SIX REGISTERED JACKS

From coming three years to five years. Two of these are sons of Dr. McCord 1766, and two of them are sons of Dr. Long 1767; all blacks with white points; 14½ to 15½ standard; big bone; wide and blocky; one of them good enough to head any herd. Farm one-half mile from station. Prices cheap. No sale on Sunday.

DILLINGHAM & DEWITT, Blue Springs, Mo.
On C. & A. R. R., 20 miles out of Kansas City.

Jacks For Private Sale

In order to reduce my jack stock I will sell at very much reduced prices for the next 60 days. I raised most all of my jack stock and can sell them cheaper than the man that deals in them. My jacks are all black with white points; in ages from 2 to 6 years old; in sizes up to 15¾ hands.
U. G. SAUNDERS, Flemingsburg, Ky.

Jack Wanted

I have a $750 equity in a $1,000 stock of goods, now in the wholesale house at St. Louis. Goods consist of groceries and chinaware—good clean, quick selling stuff that can be shipped any time or contract renewed.

I must have a jack good enough to head a herd of Jennets and not over 6 years old.

Write for list of goods, and give me full description and size of jack in first letter.

John T. Adams, Charleston, Ark.

Three Jacks

For sale or trade. Can use good, young draft stallion. One jack seven years old; weight 1,050 All O. K. every way or money refunded.

T. B. McClellan, Stratton, Neb.
Box 23.

JACK FOR SALE OR EXCHANGE

Because It Is Kin To My Jennets. Will Take a Jack Suitable to Use on Them in Exchange.

My jack is black; coming four years; 34-inch ear measure; 72-inch heart girth; 17-inch knee; 10½-inch bone; weight 1,000 pounds.

GEORGE V. HINKLE
Bigelow, Holt County, Mo.

Young Jacks

AND JENNETS FOR SALE.

Also two young Percheron stallions.
R. B. Bronaugh, Pleasant Hill, Mo.

LEAVENWORTH COUNTY JACK FARM.

Established 1882. 25 head of Mammoth jacks and jennets. Write for prices.
CORSON BROS., Potter, Kansas.
On Santa Fe Ry.

14 GOOD BREEDING JACKS.

Also imported Percheron and Belgian stallions; some weigh 2160 pounds. Stock for sale on long time payments, 1, 2 and 3 years at 6 per cent.
R. I. LITTLE, Route 2. FAIRFAX, IA

JACKS FOR SALE.

Seven first-class jacks; ages one to six. Bred right; raised right. Priced to sell. Colts to show. Mares in foal for those of proper age. Also some good jennets; ages one to seven.
L. W. Garriott, Austin, Scott Co., Ind.

expected. If you will test the semen with a microscope when he is making more services than this you will probably find some services infertile. Fresh eggs will make the horse have a nice coat of hair but has very little value so far as fertility is concerned. A few potatoes or carrots during the breeding season are not detrimental and may have some value, more especially if your horse is a delicate eater.

954—ORCHITIS—I have a jack coming six years old that is thrifty and in good condition every way, and has only served one mare this spring. That was three days ago, and now his testicles are both considerably swollen. Can you tell me the cause? What shall I do for him? Ought he to serve any mares in that condition?—Kentucky Subscriber.

REPLY.—While in this condition the jack should not be used for service. Apply a good, warm antiphlogistine pack to the parts, keeping it in place by means of a suspensory. This will aid in reducing the swelling.

955—SHY BREEDING MARE—I have a valuable pedigreed mare coming five years old that won't get in foal. Two years ago she was bred all summer every three weeks until August 20th, after which she refused the horse and to all appearance was settled, but she turned out not to be in foal. During the summer she was on grass and did no work; two stallions were tried. Last summer she was worked and bred again all summer but to a different stallion and appeared settled about the middle of August, but does not show any signs of being in foal yet. She is an extra lively mare and plays like a gelding, with geldings biting, etc., but has not yet been in heat this year as far as I know, but has not yet been tried with a stallion. All three stallions that were used were extra sure horses but were rather closely related to her, their sire being the grand sire of the mare, but the mare's sire and stallions were all out of different dams. Do you think the close relationship has caused her to be barren with their stallions? The entrance into the womb seemed to be split on one side as if she had had an extra large foal, but she has never had one. I don't see how that could have made much difference as long as the semen got into the womb.—Canada Subscriber.

REPLY.—Some mares will not fertilize with stallions closely related. A trial with any outcross stallion might give you results in this case. She may have been injured during a service and a scar tissue may extend farther into the uterus than you are aware of. Some mares that have a severely lacerated cervix will not breed as the mucous plugs cannot perform properly. You should take a speculum and make a careful examination of this split you speak of.

956—DISTORTED PENIS—My jack was kicked on the penis while it was erected, congested; after pouring cold water on it 36 hours I reduced the swelling in the penis but it passed back into the testicles and I have them back to about normal. The penis only has a very small scar on it, and he will get ready as quick as he ever did but it draws around to the right when it is erected. Do you think that this has ruined him for service or will it get all right when everything has come right? What would you suggest for this trouble? The jack has never missed a meal or watering and is hearty every other way.—Kansas Subscriber.

REPLY.—It is not likely your jack will prove as sure as formerly for the reason that the crooked penis will not permit the semen to be ejaculated directly into the uterus, which should occur in at least 50 per cent of mares bred. We cannot suggest anything that will correct the malformed condition at the present time.

957—JACK REFUSES TO WORK—I have a four-year-old jack that I cannot get to serve. He has served one mare this spring and I can't get him to serve any more. He gets ready sometimes and then won't serve. This jack worked good last spring. He is a good registered jack and I would like to have your advice.—Missouri Subscriber.

REPLY.—Be very gentle with this animal. Treat him kindly. Pet him. Give him a lump of sugar occasionally. Every time you go about him have something for him—something that he likes; he would be glad to have you come and see him frequently. Work with this fellow; get a good gentle mare that is in good heat and take her into his stall; if everything else fails get a little urine from a jennet that is in heat, if possible. Place a little on the mare's tail or on the hand so he can smell it. This will probably have the desired result.

958—DEAD STALLION—There were seven big stallions that were being shipped through here from Sioux City and one of these horses got down in the car and they dragged it out and got it in the barn and it lived about 24 hours. Couldn't get upon its hind parts at all. What was the matter and what could have been done to save the horse?—Iowa Subscriber.

REPLY.—Your description is too meager to enable us to give you any definite opinion as to the ailment of the stallion. If this animal was not properly exercised and prepared for the shipment it may have contracted azoturia, which disease could give rise to the brief symptoms you mention.

959—MARE FAILS TO COME IN HEAT—We have a nice draft mare eight years old and have tried two years to get her to show anything of being in heat. She doesn't show any time; she never has raised a colt. Is there anything to do for one of this kind?—Illinois Subscriber.

REPLY.—If you are sure this mare is not in foal, breed her with a capsule and let her go.

960—DISEASE AMONG CATTLE—We are having a strange disease among our milk cows. About ten days after calving they seem to be blind and stagger around just like they were crazy. They continue to eat but lose flesh. I have one that has been blind for ten days and have heard of several others. As we have no competent veterinarian near us would appreciate your advice. Have been giving this cow salts. Is acts well but is still blind.—Arkansas Subscriber.

REPLY.—You should study carefully the food supply of your animals as we fear they are getting hold of some poisonous plant or the leaves from some early leaving tree. Try and avoid the disease by a change in the diet. It would be impossible for us to outline a course of treatment until the true cause of the disease was discovered and you will find that prevention is the proper way to overcome your trouble.

961—MARES ON RED CLOVER—Can any of the readers of your paper get mares in foal while running on large red clover. I would like to know how it is done for this loses the stallion man more money than all the diseases in this part of the country.—Illinois Subscriber.

REPLY.—Test your mares with red litmus paper. If the color changes, take your mares off of the red clover while they are being bred.

962—ALUM IN THE UTERUS—Is it advisable to use alum in the uterus of a mare that is too loose to draw it together? I have been told that it is all right but have never used it myself, but have heard of others who have. If so, how should one use it and in what form?—Iowa Subscriber.

REPLY.—Alum should never be used in the uterus. There are too many of these old "fogy" notions that should be eliminated. Use some of the standard treatments that will give you results.

963 — REGISTERED PERCHERON HORSES—I saw your article of February 5th with regard to the registration of Percheron horses, which interested me very much, and I would like to post myself a little further. Can you tell me if the Percheron Society of America ever legally registered top crosses, and if so when was the rule changed? Can you tell me at what date the American Percheron Importers & Breeders Association changed the rule to forbid top cross registrations?—Oklahoma Subscriber.

REPLY.—Both record associations have recognized top crosses. You can get the exact date of these expirations by writing to Wayne Dinsmore, secretary of the Percheron Society of America, Union Stock Yards, Chicago, Ill., and John Forney, secretary of the American Percheron Importers and Breeders' Association, Plainfield, Ohio.

964—STIFF JACK—I have a jack that was traveled about 40 miles two months ago and the leaders in his front legs are swollen up and I have been bathing his legs with liniment and cannot reduce the swelling very much. He is so sore he cannot get around very good. I think the cause is that he was standing on manure too much and his feet were in bad shape when I made that trip. The jack is 11 years old. What would you do for him?—Oklahoma Subscriber.

REPLY.—It is quite likely that the trip was too long for this jack when not in condition to take it, and it is a question whether or not the trouble is all in the tendons of the legs. Saw a strong barrel in two parts and after nailing pieces on the bottom so his weight will not force it out, place his fore limbs in the half barrel and fill it up with cold water. Allow him to stand in this for three or four hours, both forenoon and afternoon, giving him a few hours' rest between times. Lead him about for 20 minutes twice a day in order to insure exercise.

965 — WORKING STALLION AND GELDING—I have a seven-year-old gelding weighing 1,700 pounds and have an eight-year-old stallion weighing 1,8000 pounds; will it have any bad effect on the gelding to work together?—Oregon Subscriber.

REPLY.—The gelding may get very timid, especially after the stallion should get hold of his neck a few times. This is about the only difficulty you will have in working the gelding with the stallion. It would be much better for the stallion if he was used with a mare which is in foal; it would be better for his disposition. He is liable to become irritated by being worked with a gelding.

966—A BLOODED THREE-YEAR-OLD—I bought a good blooded horse two years old past, will be three years old April 15, 1914. The man I bought the colt from let this colt when he was two years old, to about five or six mares. Would this injure him from being a sure horse or injure his growth, or injure him in any other way? About how many mares ought he serve this year at three years old, or ought he serve any?—Oklahoma Subscriber.

REPLY.—We do not know just what you have reference to by "blooded." It makes a difference in the breeding of horses as to the number of mares served before maturity. Road horses develop a little quicker than draft horses. We do not think the number of mares served last year has injured your colt unless he has learned the habit of masturbation. Your colt might make two or three services a week without injury and not over four.

967—SLOW STALLION—Kindly inform me if there is some remedy to make a stallion get ready quick. I have a pure bred French draft, six years old, that seems a little slow.—Wisconsin Subscriber.

REPLY.—You have probably noticed that some particular mare will be attractive to this stallion. If you can have this mare present when a service is to be made he might get ready for her reasonably quick. Your bridle may be a little too severe for him, or perhaps he has been jerked. With kind treatment he should outgrow this difficulty. These stallions which are just a little slow usually have the reputation of being sure.

968—RHEUMATISM—I have a coming three-year-old jack; he is 15½ hands high; big, heavy bone fellow. This jack is lame in left hind leg; been lame about a week. He was lame in the same leg last spring and it lasted about ten days. He is worse at times than at others. I can't see anything wrong with his leg; there is no swelling to be seen. He has a good bedded stable at night and out in the lot in day time in nice weather. I called a veterinarian and he said it was rheumatism and he could not do anything for him. This is too good an animal to let go without doing anything. Isn't there something that I can give him. He is in good strong condition except his lameness. Will he get colts this spring?—Indiana Subscriber.

REPLY.—It is quite likely that the jack is affected with rheumatism, as

WHITEOAK STOCK FARM

American Bred Percheron Stallions and Mares.

The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.



PERCHERONS

I now have on hand a very choice lot of good young stallions and mares of all ages that I am offering at bargain prices. Terms to suit. Will also furnish horses of all kinds on orders from one to car load lots. Barn in town.

A. R. IVES, Delavan, Wis.

PERCHERONS, BELGIANS AND GERMAN COACH MARES AND STALLIONS

of all ages for sale. I have recently taken over the entire stock of horses formerly owned by the firm of Ives & Bellman and can furnish patrons with first-class breeding stock of the foregoing breeds. Have a fine lot of 2 year old and older stallions to select from. Address,

WILL BELLMAN, R. 1., Delavan, Wis.



FISHER & WALKER Importers and Breeders of **PERCHERON HORSES** and dealers in Standard Bred Horses, Tennessee and Kentucky Jacks. Main barn, 1215 E Missouri St., Evansville Ind. Branch barn Staunton, Va.

All stock guaranteed and priced right and terms to suit customer. References, Banker's National Bank

WANT STALLION AND JACK.

Brood mares or fillies, for 160 acres six miles county seat; 50 acres alfalfa land; 36 acres winter wheat (one-half goes with place). House, windmill, fenced, some other improvements shallow water, fine stock place. Price $20 per acre. All stock or part stock part time. Alfalfa seed at farmers prices.

W. J. MARVIN, Oberlin, Kans

ONE YOUNG PERCHERON

Stallion, by Imp. Elian and out of a Brilliant bred dam. Will make a good big horse. I raised this stallion and can't use him, so will sell low.

J. H. McCULLOH,
Creighton, Cass County, Mo.

BAKOTA RANGE HORSES AND MARES

For sale. Plenty of bone and quality. Mares safe in foal. Most of these horses are Shire and Percheron crosses. Can match some nice teams.

H. L. BREKKE,
Lindsay, So. Dak

IMPORTED AND HOME BRED STALLIONS AND MARES.

PERCHERONS, BELGIANS, SHIRES.

The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perch this year. See what we have before buying elsewhere. **Address Hart Bros Osceola, Iowa.**

4 GOOD PERCHERON STALLIONS

Two Are Imported; Two Home Bred

And all ready for service. These are for sale at reasonable prices. I have also for sale several younger stallions and some imported and American bred mares and fillies, all good.

MANUEL CROSS, Adrian, Minn



FIFTY STALLIONS AND MARES.

$250 to $1000 Each.

Write for my illustrated **Circular telling why I can save you money** on the purchase of Percheron or Belgian stallion or mare.

A. W. GREEN,
Middlefield, Ohio
R. R. Sta., E. Orwell, on Penna. Ry., between Ashtabula and Warren.

FOR SALE OR TRADE

For good, big producing Percheron mare or fillies, a fine coming three year old jack sired by 1,250-pound jack and by big jennet.

S. J. MOLBY, AGRICOLA, KANS

icks are frequently so affected. Give im an ounce of sodium salicytate vice a day for four or five days and nen follow with about four ounces aily of magnesium sulphate. Alter- ate by dropping back to the first prep- ration at the end of that time. Give ccess to grass and keep the animal warm, dry quarters.

969—TWO-YEAR-OLD STALLION — have a registered Percheron that will two years old August 10, 1914. How any mares would you advise breeding th him this spring? And how far art should each service be?—South kota Subscriber.

REPLY.—We would not advise eeding any mares to this colt this ring. He is too young and might very easily injured. He will make u a bette. horse and give you bet- r results to wait until fall or the llowing spring.

970—DISEASED MARE—What is the ason that a mare, a regular breeder to last year, will not get in foal? re will stay in heat for three or four eks at a time and would take the rse at all times. She was tried last ring from the time she foaled until e present time. I would like to know w to handle this mare so as to get r in foal this season. Mare is in od, thrifty condition and has been this time.—Nebraska Subscriber.

REPLY.—A stallion probably served diseased mare before this mare was rved last year. Use the iodine treat- nt on her and in three weeks use e saline solution and breed her at e next heat period.

971—MONTANA COLLECTION LAW Please give me some information in gard to a point in law. I will state parties in this manner: A the stal- ner, B the mare owner and C the man t holds the mortgage on the mare. e terms of A is $15 to insure mare foal. B bred mare but mare was rtgaged to C and the mortgage is itten in this way, that C holds mare l increase and won't pay the service and B has nothing to pay with. here is A's recourse? A did not know mare was mortgaged at the time service.—Montana Subscriber.

REPLY.—We understand that your te has recently passed a law giving ien on the mare and colt. This will a good place to test this law. We lieve this law will hold good, and it n't make any difference where the perty is found just so it is within e state.

972—DISEASED UTERUS — One of patrons has a mare that seems to ve some womb trouble. She keeps owing off a thick, whitish discharge. t only when she is in season but all time. What shall I do for her? e is a young mare and has been a e breeder until last year. Would e safe to breed her after treatment not? Plase give me all the advice can in this case.—Missouri Sub- iber.

REPLY.—Use the iodine treatment ice, three weeks apart, then use the ine solution once. If she is proper- cleaned up, breed her.

973—ANOTHER CURIOUS CIRCUM- ANCE—Would like to have your nion and advice on breeding young res the first time to a jack. I be- re that 15 mares in our neighbor- od abort their first colt when bred a jack to one mare that is bred to a se. This is not attributed to just e jack but to all of them.—Missouri scriber.

REPLY.—Your imagination must be rking overtime. We know of no ason for conditions such as you de- ibe and do not believe there is any fference as to abortion in cases of s kind. If you are standing a good k and will give us further particu- rs we will be glad to help you in- stigate this matter, but if you are nply trying to discredit the use of cks where they are needed we can- t help you.

974—TREATING DISEASED MARES In treating diseased mares is it nec- sary to give the treatment while in ason or not? When we use both the line treatment and the saline treat- nt how long after treatment must wait to breed?—Missouri Sub- iber.

REPLY.—There is very little use to eed a mare short of five weeks after e iodine treatment has been given. Mares may be bred immediately after the saline solution or soda treatment has been used. It makes no difference whether they are in heat or not.

975—SORE PENIS—My stallion had a sore appear on penis about half way up. I had a veterinarian look at it and he pronounced it a scratch, but it came in tiny spots. The sore was about three-quarters of an inch in diameter. Have been using a disinfectant wash and it is getting better. Can you tell if it is a blood or skin disease. Is that all that is necessary to be done?—Arizona Subscriber.

REPLY.—Continue to wash the penis regularly. Screen your stall so the flies cannot get to it. We do not know what the nature of these sores may be without a personal examination. Do not breed any mares till he is thoroughly well. Watch all the mares and see that they do not have small sores on the vulva.

976—SHY JACK—I have a good jack about eight years old; as quick a server as a horse; has been a reasonably sure foal getter, but last year failed to get any colts and few the year before. Seems to be in perfect health and good flesh; always had good care and feed and has never served more than two mares a day. If you can give me any information what to do for him I will greatly appreciate it.—Illinois Subscriber.

REPLY.—Test this jack with a microscope and find out whether he is discharging live spermatozoa or not. He has probably made too many services before maturity. We very much doubt his future as a sire.

977—TIEING THE NAVEL CORD— What is your idea in regard to cutting and tieing the navel?—Michigan Subscriber.

REPLY.—Some veterinarians have good results by tieing the navel cord and crushing it off below, but this should only be done for the best results by men who are perfectly familiar with sanitary conditions. If there should be any germs above the place where it is tied the colt would probably have navel disease. There is also a material which is expected to escape from the body through the navel. These ligatures sometimes leave a knot which is very unsightly. The best method we know of is to use a dusting powder. This has given good results with all classes of horse breeders.

WHY HE ADVISES SHIRES.

To the American Breeder:—Being a reader of your paper as well as a breeder of draft horses, I don't like to allow an article like Mr. Rickard's to go unchallenged. I believe Mr. Rickard's advice to owners of mares weighing from 800 to 1,100 pounds, to not breed to draft horses on account of its proving a failure in most cases, is entirely unfounded.

I have, for the past twenty-five years, been doing this very thing for myself and my neighbors with the very best results. I have made crosses of an 800-pound mare to an 1,800-pound Shire horse, time and again, and have seen some as good as 1,100 to 1,200-pound horses, with two good ends and a good middle as the results, as any one would care to see. While on the other hand, these same mares bred to a standard bred horse weighing 1,200 pounds produced only ponies with very little value. Now as to the 1,100 pound mare, I have seen many 1,400 to 1,600 pound horses as the result of crossing them with an 1,800 pound Shire stallion, and usually have more quality than when bred from larger mares. So my advice to owners of such mares would be, by all means, breed them to a good draft sire; preferably a Shire. You say, "Why a Shire?" Simply because a Shire will give you more bone to support the body, than any other draft horse known. And when you come to sell a draft horse, bone is one of the first requirements. So let's raise what they want to buy.

Why a person would advise breeding the class of mares spoken of to a road or saddle stallion, is more than I can understand, as with us the light horse is getting hit harder every day and as we grow older the demand for this class of stuff will decrease. While, on the other hand, the draft type will always be in demand. The automobile is successfully putting a stop to demand for the carriage horse. The motorcycle is putting the saddle horse out, but the motor truck can never put the draft horse out.—Ed. H. Magowan, Buffalo County, Nebr.

HOW'S THIS FOR A MARE COLT MACHINE?

To the American Breeder:—I saw a Nebraska Subscriber's statement of his mare Lynda. Now I bred a three-year-old mare for my neighbor in April and traded for the mare the next January. This mare is gray and weighs 1,400 pounds and her name is Mabel. She foaled me a mare colt May 16, 1910; May 8, 1911, she foaled me another mare colt; May 20, 1912, another mare colt; May 4, 1913, another mare colt and is due to foal May 9, 1914. Now you see that she had me four mare colts all in May and all on an even date. These four colts are all from my old Shire and Percheron stallion, a full blood on both sides. Now she is in foal to a full blood Shire that we bought last spring. While she is only a half-blood Percheron, it would take $500.00 to buy her. I will breed three of her filleys this summer. I have all her filleys and expect to make them make me my herd of mares.

I have been in the horse breeding business for years and have never had a mare to bring me but one horse colt and never had but one mare to bring me a dead colt, or at least I never saw the colt, it may have been killed by the coyotes. So I consider I have been pretty lucky so far. I have two stallions of my own and I had an interest in a full blood Shire, which I sold my interest in last month, but I expect to breed my mares to him as I want to breed to the best.

I have used the capsule system for three years and find that it saves my stallions to a great extent. During the season in traveling my stallions I can stop over night and breed all the mares in heat and go on my circuit and my horse is fresh and ready for the next stop, so there is where it pays to use the capsules. I have been taking the American Breeder for a year and when my time is out, which will be two years, I expect to renew it.—O. Hughes, Mesa County, Colo.

BOUGHT PRIZE WINNING PERCHERONS.

C. F. Jones of Rippey, Ia., recently bought all of the Percherons advertised by John W. Wray of Fort Worth, Texas. The purchase of six head included some especially high class animals. The two stallion colts included had won first and second at the Fort Worth fair; one of the mares had been three times champion of the same show. A yearling filly was reserve champion last fall. These horses were advertised in the American Breeder, only.

WONDER WHY I DID NOT ORDER IT SOONER.

To the American Breeder: I thank you very much for the answer I got to the question 803, "Service for a Working Stallion." I am always glad when the paper comes. It is the greatest paper, of its kind, I have ever seen. I wonder why I did not order it sooner. It is the best paper for information for the farmer and breeder, I ever saw. I would like to attend the Graham Breeding School when it is in session again.—W. F. Buchholz, Effingham County, Illinois.

150 STALLIONS

Imported and home-bred stallions. I guarantee to sell you stallions for less money than any firm in America. Come to a Live Horse Market and see all draft breeds. Reference, any Bank in Creston. **A. Latimer Wilson, Creston, Iowa.**

PERCHERON STALLION

For sale. Imported 1911; age 3 past. Can show you he is a breeder. Price, $800. Will accept part or full value in matched pair or single drivers; well broke. Mention this paper.
AMOS HANSON, Collins, Ia.

4 stallions, $1,200 if sold at once. 3 Percherons, recorded P. S. A.; blacks; sound; coming 3 years. One French draft; same age and color; sound. Price for all, $1,200, if taken immediately, or will sell choice. A bargain.
J. C. Stewart, Monmouth, Ill. R. R. 6.

PERCHERON STALLIONS, MARES AND FILLIES.

Imported and home bred, for sale at reasonable prices.
W. C. BAUGHMAN, Pulaski, Iowa.

PERCHERON AND BELGIAN.

Stallions. Can show the buyer **one stallion or 50, $450 and up. Some weigh 2,160 pounds. For sale, part cash, balance, 1, 2, and 3 years at 6 per cent.**
R. I. LITTLE, Route 2. FAIRFAX, IA.

Percheron Stallions

For sale. Six head, 2 to 4 years old; black; weight 1400 to 1950. Price $400 to $800. Call on or write to
S. L. PAYTON, Bedford, Iowa. Rte. 1.

2 PERCHERON STALLIONS.

Registered in P. S. A.; 2 years; over 1,600 lbs., each in growing condition; black and dark brown; clean boned; good actors. Priced low. Four miles south of town.
R. B. BRONAUGH, Pleasant Hill, Mo.

Pure Bred Percheron Mares

For sale; in foal to prize winning stallion; registered in P. S. A.
C. P. O'DONNELL, Winchester, Ill.

PERCHERONS

For Sale. Imported and home-bred stallions and mares at prices that will sell them.
H. REDENIUS,
RUSHMORE, Nobles County, MINN.

BELGIAN, SHIRE AND PERCHERON STALLIONS

and mares, also Standard bred stallions and mares, $200 and up. **E. P. Hamilton & Sons, Garden Grove, Ia.** (Mention this paper). 23 miles S. W. of Chariton, Ia., 82 miles south of Des Moines, Ia., at Leroy.

CLYDESDALE HORSES

Stallions and mares of all ages for sale.
Also Shorthorn Cattle.
W. A. DeMerritt
Route 2, Plainfield, Ill.

Grade Clydesdale Stallion

For sale. Five years old; extra good individual; sure breeder and sound; weighs 1,800 pounds in breeding condition, and has won a blue ribbon every time when shown. Will sell reasonably.
SCHERDER BROS.
Bowling Green, Mo. Route 3.

WOULD BE CHEAP AT $5.

To the American Breeder:—I have been reading so many letters written to your paper that I just must say a word of praise myself. I am a member of the Breeding School. I learned a lot there; got my money's worth and a lot more. I think the American Breeder is the best of all. I cannot understand why you are lowering the price, for if it cost $5.00 it would be cheap. I could not get along without it and I tell my friends the same. I would like to tell you all I think about it but I know you must be very busy getting out as good a paper.—Wm. Briggs, Ward County, North Dakota.

Live Stock, Hay and Grain Market Review.

The status in the horse market in the past two weeks was an active trade with prices firm. Where quality was strictly choice competition was active and in some cases $5 to $10 more were paid than in the last weeks of March. However, general demand is yielding to specialties, and receipts are on the decrease. This condition is entirely normal for this season of the year. From now on demand usually shows gradual contraction up to hot months of July and August and September follows with general expansion.

Southern demand is already lagging considerably. Buyers who care for that trade say that purchases in the first ten weeks this year were large, that buying was more on a cash basis than ever before, and that the entire cotton belt seems to be the most prosperous in its history. Large cotton acreage is being planted and seasonable weather prevails in all sections, following a rather unusual cold spell. Such conditions, dealers say, favors an early fall return to buying horses. Probably one of the most pronounced features of the past two weeks was an order for heavy draft horses for use by the ice trust in New York City. They purchased three car loads in Chicago and two in Kansas City, all told 105 head that cost $200 up to $325. This purchase shows that the horse is losing none of its usefulness in the city, especially where short hauls are concerned.

Demand in the corn belt has proven less urgent though sufficient to absorb supplies. Farm work is well started and that has tended to reduce country selling, and at the same time has cut off country buying. Farm requirements have been supplied fairly well.

The annual auctions have started in the Northwest. On the 15th of this month Miles City, Mont., held its first auction, and will follow with five others before the season closes. Sales of strictly range horses will not begin at Missouri river markets before the latter part of August.

The spring mule demand has about run its limit. Feed barns have been cleared, and the total business since the first of the year has been large, though prices have averaged lower than last year. Owing to an expensive feed bill, profits this year were not as large as last year. From now on, requirements will be of a scattering sort, good in spots and indifferent elsewhere. If construction works get a good start there will still be a good outlet for heavy mules. Receipts are light and on that account prices are holding about steady.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Drafters, 1700-pound up	$225@280
Drafters, fair to good	150@280
Chunks, good	155@190
Chunks, fair	95@150
Southerners, good to choice	130@150
Southerners	90@125
Driving horses	65 up
Mules—	
13½ to 14½ hands	100@135
14½ to 15½ hands	130@165
15½ to 16 hands	160@210
16½ or better	200@265

New High April Price for Steers.

On April 14, M. T. Ferris of Winchester, Kas., marketed in Kansas City 21 steers weighing 1,480 pounds at $9.40, the record price for the fourth month in the year by 55 cents. The top price in April last year was $8.85, and the previous high sale this year was $9.25. These cattle were the best bunch of steers seen on the local market for some weeks past, and demonstrated how short the general run falls of primeness. They were long twos and had been fed since they were calves and given a six months' finish of linseed meal, ground corn and alfalfa hay. The top price in Chicago this week was $9.50, and for the year $9.75.

While this is an instance of what the market is doing for prime steers in their scarcity, other steers selling to killers are bringing $5.80 up, the last named price being paid for common Louisiana steers that weighed around 600 pounds and sold in the quarantine division. The bulk of the steers brought $7.75 to $8.50, and were Westerners, coming from Texas, Oklahoma, Colorado and the Northwest. Some early South Texas grassers, the first of the season, brought $6.75 to $7.25, and in a short time the coast region is expected to put a good many green cattle on the market. The general market compared with two weeks ago is 25 to 35 cents higher, and the market now seems to be drifting into new high grounds for the season. Demand for beef has not expanded much since the close of lent, but further improvement is expected as the season advances. Both salesmen and buyers say that the shortage in fed cattle will be more pronounced from now on and common half fat kinds will increase in supply. This probably will develop new high levels for prime steers and a sagging tendency for others, resulting in an unusually wide spread in prices. No extremely low prices are expected for any class during the summer, and the general scarcity of fed cattle will increase demand for the good grass fat grades.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.00@9.40
Good to choice steers	8.40@8.95
Fair to good steers	8.00@8.40
Common to fair steers	7.00@7.90
Meal fed, choice	8.15@8.65
Meal fed, common to fair	7.25@8.10

Strong Market for Butcher Grades.

Killers are having a hard time to fill orders for good to choice butcher cattle and prices are firm at the highest range of the year. Trade in the plainer classes has shown periods of dullness, but even that class is commanding prices much above this season of the year. Receipts have been light and from country reports there is no reason to believe that there will be a very big run before fall. Yearling steers and heifers are selling up to $9, and some in the strictly prime class would bring $9.25. Cows are quoted up to $7.75, the season's top. Prices for veal calves were advanced 50 to 75 cents, top $10.75.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$7.00@ 7.75
Good to choice	6.40@ 7.00
Fair to good	5.75@ 6.35
Common to fair	4.90@ 5.70
Canners	4.50@ 4.85
Heifers—	
Choice	8.60@ 9.25
Good to choice	8.00@ 8.55
Plain to fair	7.00@ 8.00
Common	6.00@ 7.00
Veal calves	7.00@10.75
Bulls	5.50@ 7.50

Big Advance in Thin Cattle.

In the past two weeks prices for stockers and feeders have improved steadily, returning to the highest point of the season, and 25 to 50 cents above the March close. The rapid growth of grass which is now sufficient to carry many cattle without additional feed, has been the cause of the advance. A preference has been shown for the light weight stockers, especially those just above the calf line. Few good, heavy feeders are available. A good demand is expected for thin cattle all year, but the July crop condition will determine the mid-summer trade.

The following quotations are for the various grades of stock and feeding cattle:

Selected feeders	$ 8.00@8.40
Good to choice feeders	7.60@ 7.95
Fair to good feeders	7.25@ 7.60
Plain to fair feeders	6.75@ 7.20
Selected stockers	8.00@ 8.50
Good to choice stockers	7.50@ 7.85
Plain to fair stockers	6.50@ 7.45
Stock calves	7.00@ 8.50
Stock cows	5.75@ 6.50
Stock heifers	6.00@ 7.50
Milch cows	60.00@110.00

Decline Follows Advance in Hogs.

Hog prices, which were at the lowest level of the season two weeks ago, moved up to the high level of the season by Monday, and in the past three days sagged again, but the low point this week was still 15 to 20 cents above two weeks ago. Packers are keeping prices under the 9 cent level by reducing their orders. For three weeks past receipts of hogs have fallen below 300,000, and this week they were less than 250,000, the smallest this year. The movement to the five Western markets is kept small by the rush of farm work. Packers are expecting increased supplies in May, though many believe that few hogs are in the country and that summer receipts will be the smallest in a number of years past. The general range in prices is from $8.25 to $8.75. Medium, light weight and heavy hogs are all selling at about the same range. Fresh pork trade is increasing and in a few weeks light weight hogs will be commanding a premium and will sell better than heavy hogs through the entire summer. Country reports indicate a big spring crop, but they will not be a market factor before early winter, unless disease forces them to market in the fall, as was the case in 1913.

The following quotations are for hogs:

Choice, 250@300 lbs	$8.50@8.60
Choice, 200@245 lbs	8.45@8.60
Medium weight	8.40@8.60
Light weight	8.35@8.55
Common to fair	7.00@8.25
Stags	7.00@8.50
Boars	4.75@7.00
Bulk of sales	8.40@8.55

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week
Monday	$8.40@8.80	$8.45@8.75
Tuesday	8.40@8.75	8.40@8.65
Wednesday	8.35@8.75	8.40@8.70
Thursday	8.30@8.60	8.50@8.75
Friday		8.50@8.72½
Saturday		8.50@8.60

Sheep Prices Well Maintained.

Sheep prices have shown the highest average of the season in the past two weeks, though in the past two days they have sagged 15 to 25 cents from the high point. Wooled fed grades are becoming scarce and demand for them is active. Clipped fed grades have been fairly plentiful though the bulk of them have been marketed. Texas grass fat shorn sheep and goats were offered in increased supply and that movement has just started. The market affords a great variety, but is rapidly drifting into normal mid-summer channels. Wooled lambs are quoted at $7.75 to $8.10; the top for the year, $8.40, was paid April 13. Ewes are bringing $5.75 to $6.50, wethers $6 to $6.75, clipped lambs $6.50 to $7.25, clipped sheep $5 to $5.75, and goats $3.75 to $4.25.

Hay Prices Higher.

Demand for hay has been urgent, and prices are up 50 cents to $1 a ton. Prairie made the greatest advance, and was in meager supply. Alfalfa was plentiful. Scarcely any timothy or clover is coming.

Quotations are as follows: Alfalfa fancy, $17@17.50; choice, $16@16.5 No. 1, $15@15.50; standard, $14 14.50; No. 2, $12.50@13.50; No. $9.50@11.50; prairie choice, $17 17.50; No. 1, $15.50@16.50; No. $13.15@15; No. 3, $9.50@12.50; ti othy choice, $17.50@18; No. 1, $16. @17; No. 2, $14.50@16; No. 3, $12. @14; clover mixed, choice, $16 16.50; No. 1, $15@15.50; clover, choic $14.50@15; No. 1, $13.50@14; stra $6.50@7; packing hay, $5@6.

Grain and feed prices contin within a narrow range. The exc lent prospect for winter wheat ten to keep cash prices down. Corn pric are held in check by importatio from Argentina. Bran, chop a

R. L. HARRIMAN, Bunceton, Mo.

The Fine Horse and Jack Auctioneer of the West

I sell more horses and jacks than all others. Terms always right: work always up to the highest standard.



W. B. CARPENTER

14th & Grand Ave., Kansas City, Mo.
Specialist in Auction Sales of LIVE STOCK AND LAND.

Work Horses Wanted

We want 10 good work horses for coal and ice wagons. Must weigh 1400 to 1700 pounds, but if the lighter weight, must be wirey and the pulling kind. We want good, up-headed stock that can stand trotting when necessary. Ages 4 to 7. Give full description and price in first letter.

Owosso Ice & Fuel Co., Owosso, Mich.

STALLION FOR SALE AND WANTED.

For sale. Eight-year-old stallion; seal brown; 1,500 pounds, but breeds like an 1,800-pound horse; sire 2,200 imported Shire; dam 1,750 Percheron. (This horse was roughed) perfect top line; perfect legs; splendidly proportioned in body and width; ideal head and eye; snappy, yet gentle; no bad habits. For 1912 got 60 out of 6 mares in foal; never had heavy season. All this for $250.

Need extra good road horse in place of this one.

W. C. MOORE, PARSONS, KANS
Route 6.

For Sale or Trade

Imported Percheron stallion, coming 8 years old; dappled gray; weigh 1,800 pounds. He is my herd hors and his colts are in the way.

Imported Coach stallions; one bay 9 years old; weight 1,400; also on black, 16 years old; weight 1,40 Would trade either of them for good young jack.

Clem Gude

Hamburg, Fremont County, Iowa.

Farm or Breeding Stoc For Sale

Either a good well improved far in wheat belt of Oklahoma, whe schools, churches and soil are goo or a good breeding establishment i good town nearby as follows: Tw registered Percherons and two bi jacks, with equity in livery stabl where business is established. Alread booked more than $600 (April 3).

Have no help of my own and a determined to sell one or the othe I guarantee all information furnishe No trades.

J. C. Boyles

OKEENE, OKL

BREEDER WANTED.

Graduate of the Scientific Breedi School with two years' experience pr ferred. State wages in first letter.

S. B. CLARK, NISBET, NO. DA

GOOD SHORTHORNS.

Pratical cattle for both beef and milk. Just the kind the farms of the country need, and with breeding and conformation to make show cattle if you want them. I show my breeding stock successfully, but no stock is ever crowded enough to hurt it.

Pleased to show stock, quote prices and answer inquiries at all times.

C. H. White, Burlington, Kas.

CARLOAD SHORTHORN BULLS

Will sell them singly or any way to suit. Have over 20; my own breeding; rich in blood of the world's champions, Young Abbotsburn and Imp. Choice Goods. Prices right.

J. H. McCulloh, Creighton, Mo.

CHESTER WHITE HOGS

For sale. Ten males; bred gilts and small pigs. White faced, Spanish and S. S. Hamburg eggs, $1.00 for 15.

C. E. THOMPSON, Elberfeld, Ind. R. 27.

shorts depend on the wheat and corn market.

The following quotations are for cash grain in car load lots on the Kansas City market:

Wheat—		
No. 2 hard	.86	@90
No. 3 hard	.86	@87
No. 2 red	.88½	@89½
No. 3 red	.87½	@88½
Corn—		
No. 2 white	.70	@70½
No. 3 white	.68	@69½
No. 2 mixed	.68½	@69½
No. 3 mixed	.67½	@68½
Oats—		
No. 2 white	.39	@ .39½
No. 2 mixed	.38½	@ .38¾
Rye	1.32 a cwt.	
Chop	.61	
Bran	1.22	
Barley	.52	@ .56½
Shorts	1.23	@1.27

ADVICE THAT LESSENED SOIL BLOWING.

Helpful suggestions for the prevention of soil blowing were sent out in March by George K. Helder, superintendent of the Hays, Kansas, experiment station.

"Listers or cultivators should be put into operation on open fields," Mr. Helder advised. "Shallow furrows should be made with the cultivator across the fall plowing that was leveled by the climatic action. Sorghum stubble may be blank listed. This may be done over the entire field or by making a half dozen furrows every twenty feet. The listing should be done in that direction which will put furrows at right angles to the customary course of the winds. A six-shovel cultivator with every other shovel removed makes furrows that will check drifting earth for a while, but the work may have to be done over again if the movement of soil particles fills up the furrows.

"The Fort Hays station had two listers and three cultivators in use to protect its large field of kaffir stubble, fall-plowed land, and fallowed land prepared for alfalfa seeding.

"Spreading a thin mulch of straw on wheat has proved beneficial. It will stay in the place spread better than you suspect, provided the wheat has made some growth so that the plant will help hold the straw. After spreading the straw it is a good plan to use a Campbell packer, or other sub-surface packer, to press the straw into the loose surface. Do not use a roller on the field; it would be harmful to further crush the soil."

WANTS MORE GOOD HORSES AND CATTLE.

To the American Breeder: I see in your paper of March 5th, where Mr. H. Kirchner asks in regard to draft stuff on the range. I have lived on the range for 30 years and the loss on horses was less than 2 per cent in the hard winters, and that was in the extremely hard winters. We have no large horses in this country; a man should do well that would come in with some large horses. I am not interested in any way with any real estate company, but am a common rancher, and therefore am interested in seeing the country filled up with good horses and cattle.—L. C. Thompson, Crook County, Wyoming.

Hog Breeding; Lesson VI

Editor's Note:—So many of our subscribers have written us of their interest in hogs, that we are continuing, in the following article, a series of "lessons" on hog raising. This material is based on the knowledge of practical men and the best trained observation and experimental data. The reader will, of course, need to give all the additional study he can to the subject, but these lessons should serve well as a general guide and a foundation on which to build.

Feeding Hogs on Pasture

Pork may be produced more economically on pasture than by any other method. It would hardly be possible to introduce forage into the fattening hog ration without cheapening the cost of production. In order, however, to handle pasture crops to the best advantage, there are several things which must receive consideration. The time to pasture and the amount and kind of grain to feed on the different kinds of forage crops are questions which arise naturally to the man who uses pasture crops.

The condition of the pasture is, of course, the best criterion to go by in determining the time to pasture. Pastures commonly used such as wheat, rye and bluegrass need no discussion. They will furnish early spring pasture and should be used until crops like alfalfa, clover, rape and oats, and the like are ready. Alfalfa and clover should not be pastured until they get a good start. It is best to wait until they are 8 to 12 inches high before begining to pasture. If this is done, they will furnish much more forage than if pastured earlier. They should at no time be pastured too closely. It is better to pasture light enough so that some hay may be cut off in addition to what the hogs eat, if it is posisble to do so. This is especially true with alfalfa in sections where the crop is a little hard to grow. Rape and oats are usually turned on to when the oats are in the milk or dough stage. The rape at this time should be 10 to 12 inches high. Sorghum grows very rank and is seldom pastured before it is 24 to 30 inches in height.

The question of the amount and kind of grain to feed on pasture is of importance. Hogs on the very best pastures will not make much gain unless some grain is fed in addition, since the best forage crop will furnish little more than a maintenance ration. If a full feed of grain is supplied, gains will be faster, but not as cheap as when the grain ration is limited. In order to get the most out of the forage and at the same time get reasonably rapid gains, a grain ration of one-half to two-thirds of a full feed is recommended. This should cause the pigs to gain around three-quarters pounds per hundred pounds live weight daily.

Now, as to the kind of grain to feed, it would not be necessary to feed a grain ration with as high a protein content (the nutriment which corn lacks) to hogs on alfalfa, clover, rape, soybeans and cowpeas as on wheat, rye, bluegrass, sorghum and the like. This is true because the pasture crops first named have a much higher protein content and hence better help to supplement the corn. While not so much supplement is required, experimental work indicates that a small amount of some supplement such as tankage, linseed meal or shorts may be fed with profit even on alfafa, or clover, hence a ration of corn 15-20 parts, tankage 1 part or corn 7-10 parts, linseed oil meal 1 part should give good results on such crops. On wheat, rye, bluegrass and sorghum some supplement is very essential. In this case, a ration of corn 12-15 parts, tankage 1 part or corn 6-8 parts, linseed oil meal 1 part is to be recommended. In the above rations, the proportions are by weight. Hogs so fed should at the end of the grazing season be in excellent condition to be finished economically by allowing them to hog down some corn.

IN FIVE LITTERS, 67 PIGS.

Idaho Favorite 269208 a three-year-old Duroc Jersey sow bred and owned by the University of Idaho, farrowed a litter of 18 pigs on March 8th. This is Idaho Favorite's fifth litter and her average litter, counting all five, is 13 2-5 pigs. Not alone in number and quality as well does this animal excel as a brood sow. In September, 1913, several of her offspring were in the money in a strong Duroc Jersey show at the Spokane Interstate Fair, and one of her pigs was grand champion Duroc Jersey female.

INDIANA CATTLE FEEDERS' CONVENTION.

To the American Breeder: The annual spring meeting of the Indiana Cattle Feeders' Association has been called by President Maurice Douglass to meet in LaFayette, Ind., Saturday, May 16, 1914. The meeting will be held in connection with the cattle feeding trials at Purdue Experiment Station. Seven lots are now on feed and will be ready for market by the middle of May. Valuation of the cattle will be made by commission men. The cost of cattle, rate and cost of gain, and profit or loss per lot will be shown. Visiting feeders will see cattle fed on the following rations:

Lot 1—Shelled corn, soy bean meal 2½ pounds daily per thousand pounds live weight, corn silage, oat straw.

Lot 2—Shelled corn, cottonseed meal 2½ pounds daily per thousand pounds live weight, clover hay.

Lot 3—Shelled corn, cottonseed meal 2½ pounds daily per thousand pounds live weight, alfalfa hay.

Lot 4—Shelled corn, cottonseed meal 2½ pounds daily per thousand pounds live weight, corn silage, clover hay.

Lot 5—Shelled corn, cottonseed meal 4 pounds daily per thousand pounds live weight, corn silage, oat straw.

Lot 6—Shelled corn, cottonseed meal 2½ pounds daily per thousand pounds live weight, corn silage, oat straw.

Lot 7—Shelled corn, cottonseed meal 2½ pounds daily per thousand pounds live weight, corn silage, alfalfa hay.

An attractive feature of the day will be the address of Mr. J. D. Waters of Dawson, Ill., who has for years been one of the most prominent beef makers in the corn belt. F. G. King, Secretary Purdue University, Indiana.

BROKEN BONES IN LIVE STOCK.

To the American Breeder:—During the last winter a great many good animals have been lost because of broken bones. These cases have been more frequent than usual because of the long period of snow and ice.

It may be somewhat of a surprise to know that most of the horses that suffered from this injury were sharp shod, and that the sharp shoes were directly responsible for the fracture. The animal's foot started to slip and naturally not meeting with the resistance expected the foot rapidly gathered momentum and suddenly the calks caught on an elevation and brought the flight to a dead stop and the bone was unable to stand the strain. I do not mean to condemn the sharp shoe nor belittle its usefulness, but only to call attention to the fact that they do not safe-guard an animal from fractures, but on the contrary increase the danger.

The majority of the fractures among cattle occur in the pelvis, usually from spreading the legs too far. The awkwardness of a cow makes her susceptible to such accidents when the ground is slippery.

The treatment of fractures of the legs in young animals is fairly successful, at least always worth a trial, but the older the animal the less favorable the probable outcome. Supporting the bones with wire, steel plates and screws has proven very satisfactory in human practice and is

Get Your Canadian Home From the Canadian Pacific



WE will make you a long-time loan—you will have 20 years to pay for the land and repay the loan—you can move on the land at once—and your Canadian farm will *make you independent.*

20 Years to Pay

Rich Canadian land for from $11 to $30 per acre. You pay only one-twentieth down—balance in 19 equal annual payments. Long before your final payment comes due your farm will have paid for itself over and over. This advertisement is directed only to farmers or to men who will occupy or improve the land.

We Lend You $2000

for erecting your buildings, fencing, sinking well and breaking. You have twenty years in which to repay this loan. You pay only the banking interest of 6 per cent.

Advance of Live Stock on Loan Basis

The Company, in case of approved land purchaser who is in a position and has the knowledge to take care of his stock, will advance cattle sheep and hogs up to the value of $1,000 on a loan basis, so as to enable the settler to get started from the first on the right basis of mixed farming. If you do not want to wait until you can complete your own buildings and cultivate your farm, select one of our Ready-Made farms—developed by C. P. R. Agricultural Experts—with buildings complete, land cultivated and in crop, and pay for it in 20 years. We give the valuable assistance of great demonstration farms—free.

This Great Offer Based On Good Land

Ask for our handsome illustrated books on Manitoba, Saskatchewan and Alberta—mention the one you wish. Also maps. Write today.

K. T. THORNTON, *Colonization Agent*

Canadian Pacific Railway

Colonization Department

112 W. Adams St., Chicago

FOR SALE—Town lots in all growing towns—Ask for information concerning openings.

ALFALFA

AS A MONEY MAKER

Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Building, Kansas City, Mo.

Wyoming Stock Ranch

For sale. 800 to 2,000 acres at $20 to $30 per acre; fine improvements; open water; open and free range; free water; private ditches; wild and tame hay; alfalfa; grain; vegetables; flowers, etc. An ideal home and finest range in the world. Two miles from postoffice and store. For further information, address

R. E. CLARK,

Cora, Fremont County, Wyoming.

being rapidly worked out for the lower animals.

It should be unnecessary to emphasize the fact that careful handling is the best safe-guard against fractures. —H. E. Kingman, Colorado Agricultural College.

SECOND YEAR'S TEST WITH CALVES AND SILAGE AT KANSAS COLLEGE.

At the invitation of the Kansas Agricultural College, a large number of cattle feeders gathered at Manhattan, May 7, spending the day at the college —the Animal Husbandry department entertaining in a manner appreciated by all.

One of the principal incidents of the gathering was the inspection of six lots of calves that had just finished a 100-day feeding experiment as a continuation of the investigations begun by the college some time ago to determine the relative value of the different silages and concentrates, and the best combinations of each, as well as to demonstrate the usefulness of silage in feeding demonstrations generally. In this experiment the corn silage was below normal in quality, due to the greater damage done to corn (in comparison with Kafir and sorghum) by last summer's drouth. Allowance for this fact should be made in considering the figures, which show that the corn silage lot did the poorest of any. Consideration should also be given to the fact that in such a year the Kafir proved most dependable for silage purposes of the three crops used. Profits on all lots were really more than the figures show, as the calves were charged in at $9 per hundred—a high price. In fixing the final value of the calves, the figures used were the appraisements of a committee of feeders and commission men. Some of the calves carried almost enough flesh for good baby beef, but the highest valuations were put on the lots that showed good development of frame without heavy fleshing, making their condition desirable for stocker purposes as well as making them an economical purchase because of their lighter weight. Lot VI was valued at $8.35; Lot VII, $8.50; Lot VIII, $8.30; Lot IX, $8.35; Lot X, $8.40; Lot XI, $8.50.

The above table gives full information as to feed, grains, etc.

	Lot VI Kafir Silage Linseed Meal	Lot VII Corn Silage Linseed Meal	Lot VIII Cane Silage Linseed Meal	Lot IX Cane Silage Cottonseed Meal	Lot X Cane Silage Cold-pres'd Cake	Lot XI Cane Silage Alfalfa Hay
Initial weights (lbs.)	325.0	321.3	322.1	326.2	330.9	327.2
Final weight (lbs.)	473.7	439.6	452.8	466.0	462.6	439.2
Average daily gain (lbs.)	1.487	1.183	1.307	1.398	1.317	1.120
Average daily ration—						
Silage (lbs.)	24.28	25.02	24.28	24.28	24.28	18.69
Meal (lbs.)	1.0	1.0	1.0	1.0	1.14	.....
Corn (lbs.)	1.0	1.0	1.0	1.0	1.0	1.0
Straw (lbs.)	.58	.57	.57	.66	.60	.10
Alfalfa (lbs.)	...	...	...	...	...	3.94
Feed per 100 lbs. gain—						
Silage (lbs.)	1632.95	2115.31	1857.83	1736.68	1843.72	1667.82
Meal (lbs.)	67.25	84.54	76.51	71.51	82.94	.....
Corn (lbs).	67.25	84.54	76.51	71.51	86.65	89.24
Straw (lbs.)	38.80	48.23	43.47	46.86	45.91	9.18
Alfalfa (lbs.)	.....	.....	.....	.....	.....	351.18
Cost per 100 lbs. gain	$ 5.26	$ 6.73	$ 5.98	$ 5.52	$ 5.89	$ 6.92
Total cost of feed	7.82	7.96	7.82	7.72	7.76	7.75
Initial value of calf	29.25	28.92	28.99	29.36	29.78	29.45
Final value of calf	39.55	37.37	37.58	38.91	38.86	37.33
Profit per calf	2.48	.49	.77	1.83	1.32	.13

Estimates in this experiment based on the following price of feeds: Silage, $4.00 per ton; shelled corn, 70c per bushel; straw, $2.00 per ton; linseed meal, $33.00 per ton; cottonseed meal, $31.00 per ton; cold pressed cake, $26.00 per ton; alfalfa hay, $14.00 per ton.

AMERICAN ROYAL MADE LATER.

The date of the American Royal Live Stock Show has been changed from early in October to November 16 to 24, inclusive. The American Royal has been held at the Kansas City Stock Yards annually for about fifteen years and the October dates have always seemed to meet with the approval of its patrons. The directors in attendance when the change in date was made are: J. C. Ewing, Youngstown, O.; T. J. Wornall, Liberty, Mo.; R. H. Hazlett, Eldorado, Kas.; M. A. Judy, West Lebanon, Ind.; N. H. Gentry, Sedalia, Mo.; G. E. Clark, Topeka, Kas.; R. J. Kinzer and W. H. Weeks, Kansas City.

COWS CHEWING BULL NETTLE FRUIT.

To the American Breeder:—What effect, if any, does bull nettle balls have toward drying up cows? My cows are eating them. I am feeding shelled oats, kafir corn fodder, seed and all, and they run to a straw stack and in corn field.—Oklahoma Subscriber.

Editor's Note: This is a new one on us. Bull nettles belong to the same great botanical family as the tobacco, tomato and potato genera.

GOOD CANADIAN COLT CROP.

To the American Breeder:—A Canada subscriber says he loses about 40 per cent of his colts from weakness. Glad to say such is not the case all over Canada. Last spring I got eight colts from seven mares, all strong. The mares were returned at 28 days. They are all heavy in foal again. This is the way they are handled: they are worked at the regular farm work until they foal, then laid off for nine days or more if they can be spared, and after it freezes up they are fed on oat sheaf in the morning, turned out to rustle all day and at night are given some hay. I never had a weak colt. Enclosed you will find photo of the twins when eight weeks old. John Cartner, Sask., Canada.



TWIN COLTS AT CANADIAN COLT SHOW.

ADVERTISING BRIEFS

The J. W. Jenkins' Sons Music Co., Walnut St., Kansas City, Mo., begin advertising in this issue their special terms and prices on Victrolas. No other instrument can be worth so much to most families in proportion to its cost and we heartily recommend an answer to the advertisement.

John T. Adams, Charleston, Ark., wants to trade a $750 equity in a stock of merchandise for a good jack to head his herd of jennets. Read the ad in this issue.

Charles J. Beck, Chesterfield, Mo., has two Morgan and one Percheron stallions for sale, or if not sold at once will lease to responsible parties.

Clem Gude, Hamburg, Iowa, has an imported Percheron stallion and two Coach stallions for sale or trade for a good young jack.

W. A. Carlisle, Cherokee, Okla., is offering two white Arabians for sale, a mare and a stallion.

J. C. Boyles, Okeene, Okla., is offering either farm or breeding stock for sale as he cannot handle both on account of not being able to get the right kind of help.

T. B. McClellan, Stratton, Neb., Box 23, is offering three jacks for sale or trade. Look up the ad.

E. F. Brown, Derby, Iowa, has ten registered Black Hawk Morgan stallions for sale; also mares and fillies.

Geo. V. Hinkle, Bigelow, Mo., has a jack for sale or exchange for one not related to his jennets. See ad in this issue.

The Northwestern Live Stock Insurance Co., Des Moines, Iowa, is perhaps the strongest and one of the oldest established companies doing this kind of insurance. We will be glad to have every reader who writes this company for rates or information, mention the American Breeder.

The Breeders Harness & Whip Co., Williamson Bldg., Kansas City, Mo., makes a specialty of a humane stallion collar. It has been found that moderate and regular work in the field is excellent exercise for draft stallions, and here is the kind of a collar for a stallion to wear when working. In answering this advertisement, mention the American Breeder.

The Jans Remedy Company, Union Stock Yards, Chicago, Ill., sells one of the handsomest best made and most all around satisfactory stallion bridle in the world. This bridle is sent post paid for $4.00. Be sure to mention the American Breeder when writing about it.

The Graham Publishing Company, 225 West 12th St., Kansas City, Mo., sells to its patrons a binder for keeping files of the American Breeder which every subscriber of this paper should have if he wants to save any or all of the copies of his papers. The binder is exactly the same as those used in the office of the American Breeder and is sent post paid for $1.00.

The Kansas City Southern Railway traverses what is already a rich section and that will some day become one of the greatest wealth producing zones in the Mississippi valley. Along this railroad are sections which excel variously, producing all the way from coal and zinc to fruit and alfalfa. For full information write Wm. Nicholson, Immigration Agent, 671 Thayer Bldg., Kansas City, Mo.

The Up-To-Date Mnfg Co., 990 10th Street, Terre Haute, Ind., is one of the oldest and most reliable manufacturers of farm and ornamental fences in the country. Every fence buyer should have the catalogue of this company on his table. Kindly mention the American Breeder when writing them.

The Leather Products Company, 1300 Acoma Street, Denver, Colo., manufacture a halter which is one of the greatest successes in the horse goods line. This halter is sent on approval and is advertised regularly in the American Breeder. Do not fail to mention our paper when writing.

The Canadian Pacific Railway Company like many another public and semi-public institution of Canada, knows that the foundation of a country's welfare lies in its agriculture. For that reason the Canadian Pacific handles its immigration business in the interest of the home makers. Refer to the advertisement in this issue and write Mr. K. T. Thornton, Colonization Agent, 112 West Adams Street, Chicago, Ill.

"Do You Know Horses" is the heading of an advertisement in this issue put out by W. B. Saunders Co., Philadelphia, Pa. This company is advertising Sisson's great book on the anatomy of farm animals. The book is standard and the company reliable.

Professor Jesse Beery, Pleasant Hill, Ohio, is now coming near the close of his advertising season. A prompt response to his advertisement in this issue will secure his introductory course in horse training free. This offer he says may never be repeated. When writing Prof. Beery, address Dept. 13, as shown in the advertisement, and mention the American Breeder.

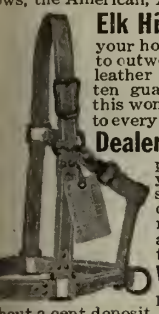
W. H. Bayless & Co., Blue Mound, Kas., write: We are pleased to report that sales have been very good with us this year. Our latest sale being Crampon, a five-year-old sorrel, imported Begian stallion, weighing 2,130 pounds, to H. C. Wornom of Mayfield, Kans. This is one of the very best Belgian horses sold in Kansas this year. He is of famous breeding and one of the few of his type that ever leave Belgium. Mr. Wornom has spent a life time in the raising of good horses and has bought Crampon to head his stud. Recently we sold the American Royal prize winning Percheron stallion, Lecheur, a two-year-old weighing 1,990 pounds, to W. I. Pierce of Chetopa, Kans., and Lardon, another prize winning Percheron, weighing 1,980 pounds, to D. L. Williams of Parsons, Kans. These are two of the most promising Percherons we have sold this year. Both are richly bred and will mature to 2,200 pounds each. The 2,200-pound Belgian, Brilliant (a son of Indigene de Fosteau) went to M. O. Mouse of Altona, Mo., and a ton Belgian to W. Dowell of Welch, Okla. One of the things most gratifying to us and which proves the quality of our horses, is the fact that we are selling horses in the same localities that we have previously, and to the best breeders and farmers of their respective communities.

W. F. Young, 388 Temple St., Springfield, Mass., the manufacturer of Absorbine, writes: The blemished horse of today is the sound horse of tomorrow if properly cared for. Testimonials from all parts of the country show that Absorbine is a great favorite among owners of good stock. Harry Clemens, of Goshens, Ind., reports the following on March 29, 1913: "I think Absorbine is the best all-round liniment that can be kept in a training barn. I trained nineteen head of horses last year and for the benefit of my brother trainers, I can recommend Absorbine as the best thing to use on a horse that has hit his knee and I have experienced it. I had a very fast horse that hit his knee, and we used Absorbine and hot water swabs on it; reduced the swelling right away and never lost a minute's training and took a mark of 2.14¾ last year."

Henry Lefebure, Fairfax, Iowa, Importer of Belgian stallions and mares has enjoyed the most prosperous year in the history of his importing business and writes that the demand for Belgians from this establishment was so strong that it was necessary for him to have another importation land at his barns March 25th. He had a number of the very best stallions on his November importation still on hand and with the new importation of big ton, two-year-old roans, sorrels and bays, he is now in position to show the prospective purchaser an exceptionally high-class lot of Belgian stallions. Mr. Lefebure has been in the importing business for twenty-six years and the annual increase in the volume of his business indicates that he has given his customers fair treatment along with good values. He owns a number of farms, all adjoining the home farm, and raises nearly all the feed the horses consume. In this manner he eliminates a large overhead expense which has to be assumed by most importers. He also sells every stallion at his farm, which saves another expense to the buyer. Mr. Lefebure will be pleased to show any of his stallions to prospective purchasers at any time. See advertisement in this issue.

Send No Money

or over three years almost our entire output of **Hide Leather** has been made into halters for City e Departments, Buffalo Bill and Sells Floto ows, the American, Adams and U. S. Exprss Co.



Elk Hide will not harden or crack It will not cut or chafe your horse's head. We guarantee it to outwear any two ordinary black leather halters ever made. A written guarantee and a test sample of this wonderful leather are attached to every **"Never-Break"** halter.

Dealer's Price is $3. everywhere, but with parcels post direct to your door, if you order from us, we can save you the two profits your dealer and the jobber ordinarily get. We will send you a sample halter **direct from the factory for $1.50.**

We Ship On Approval postage paid to your door hout a cent deposit and you may be the judge. **d no money unless you care to do so.** y wrapping 4 halters in one package the cost of tage is much less and if you will mail cash with er **we will send you 4 halters for $5.00.** you decide you don't want them your money be refunded and halters returned at our ex- se. Write today. Address the factory. Do it now

HE LEATHER PRODUCTS CO.
0 ACOMA ST. - DENVER, COLO

OW CAPSULE SYSTEM STARTS.

To the American Breeder: I do t want to annoy the readers of the nerican Breeder and more especial- the man who does not believe in psule or scientific breeding. I want say to the non-believer, he is just much behind in horse breeding as e farmer who would say you must e the old wooden moldboard plow you cannot raise a corn crop. I ve attended the Graham Scientific eeding School and can truthfully y it is an absolute success. As I am e first owner of stallions to use the psule system in this locality, there s been many misleading things said me. I thank Mr. F. B. Graham. I ve been successful and I can fur- sh many testimonials to that fact. nere enclose a few to be published. ıy breeder can read them, at any ne, and be convinced. I can send u many of such testimonials as we along.—M. B. Koffroth, Union coun- Ohio.

"I want to state to all that it may ncern that I had no faith in breed- g a mare by capsules. Last spring took my mare to Mr. B. Koffrath, uld not get a service of the horse at day so I had a capsule instead and e mare is in foal. I think it is the fest and best way to breed a mare. D. S. Lemaster, Union County, Ohio.

"To the American Breeder: This is certify that I bred my mare three asons and did not get her with foal. took her to Mr. Kroffrath's barn and examined her but said he would not eed her until he could treat her. He ld me how to treat her, and I treated r and I treated her as he told me to. took her to his barn and he used a psule on her just once and she is w in foal. I would say, whoever has ares that wont breed, I can recom- end to Mr. Kroffrath. I consider he derstands his business.—H. D. Hoov- Union County, Ohio."

"Mr. M. B. Koffroth: I am going congratulate you on breeding mares. e had trouble in getting those mares th foal especially the three-year-old urdle mare and the seven-year-old are. Of course the old mare caught l right, but when you were capsuling ose two mares E. A. Schambr and yself laughed and had lots of fun inking how foolish such a thing emed. But you succeeded in your psuling work because the one mare st her colt and the other mares are owing their colts and we can see at they are all right and are safe foal. Many thanks to you.—C. C. rtle, Union County, Ohio."

WELL PLEASED WITH THE BINDER.

Graham Publishing Company: I re- ived the American Breeder binder dered of you a few days ago, and n well pleased with it.—Green R. arp, Savoy, Whitley County, Ky.

PRESERVATION OF RUBBER GOODS.

To the American Breeder: The con- tions most favorable for the preser- ation of soft rubber, according to cent investigations, are the follow- g: absence of light and heat, and resence of air and moisture. Articles soft rubber should therefore be kept in a cool, dark, moist place with a moderate amount of ventilation. Nearly any cellar will supply these conditions. Even under the most favorable conditions, ordinary soft rubber deteriorates in quality in the course of time, especially if it is "composition" or adulterated or worked-over rubber. There are at present several patent preservatives that are to be applied to the surface of the rubber, but their real value is yet largely undetermined.—C. E. Vail, Colorado Agricultural College.

LIVE STOCK LOSSES LAST YEAR.

Complete figures on the widespread loss from hog cholera have been compiled by the U. S. Bureau of Animal Industry, showing that the 1913 losses from this disease were the heaviest in history. In that year the report shows—118.9 hogs out of every 1,000 in the country succumbed to disease, mostly cholera, compared with a mortality of 110.1 in 1912, 43.5 head per 1,000 in 1911, 43.9 per 1,000 in 1910 and a 10-year average loss of 60.1 per 1,000.

As the department of agriculture estimated the number of hogs in the country at the opening of last year at 61,178,000, the losses from disease amounted to the enormous total of 7,273,964 head. In 1912 the losses from disease were 6,736,000 head.

The condition of hogs April 1 in the United States is placed at 91.6 per cent, compared with 91.4 a year ago and a 10-year average of 94.4 per cent.

Losses of other live stock (per 1,000 head) from exposure and disease in 1913 and 1912, with the 10-year average, follow:

	1913	1912	10-yr avg.
Horses and mules	20.6	22.6	19.4
Cattle	30.7	34.6	37
Sheep	42.7	49.7	58
Lambs	49	56.5	63.3

GOVERNMENT WHITEWASH.

At this time of year whitewash can be used advantageously, in connection with cleaning up to prevent fly nuisance and infection danger. A good whitewash (known as government whitewash) is made as follows: Take one peck of lime slacked in boiling water and kept just covered by the water while slaking. Strain through a coarse cloth. Add two quarts of fine salt dissolved in warm water, one pound of rice meal or ground rice boiled in water to a thin paste, one-fourth pound of whiting, and half a pound of glue dissolved in warm water. Mix all thoroughly and allow the mixture to stand covered for two or three days, stirring occasionally. Before using heat the mixture. Government whitewash is more durable than common whitewash; it does not wash off so easily, and is a better white for exterior use.

BOWEL OBSTRUCTION IN HORSES.

To the American Breeder:—Judging by the number of cases of fatal obstruction to the bowels in horses, that come to the notice of the veterinarians of the Colorado Agricultural College, there must be many thousands of dollars lost to farmers every year from this cause. And this is a condition that might easily be prevented.

In the winter time the roughage is dry and succulence must be provided. A horse with good teeth and fed alfalfa, timothy, bluestem, or other well cured hays, combined with grain and plenty of water, will seldom be affected with impacted intestines, but a ration of straw, or bleached alfalfa stems picked up in the fields, combined with a low vitality, cold, poor teeth, and only snow or otherwise a limited amount of water, will furnish conditions which make fatal obstruction of the bowels possible.

The poorer the feed the more an animal must eat, and a ration of straw or poor quality of hay, does not furnish sufficient nutriments to make it possible for a horse to eat enough to support life. He eats inordinate quantities of this highly indigestible food which produces distension, atony and finally paralysis of the bowels.

Most of these cases cannot be treated successfully but prevention is easy. After all it does not pay to keep animals, unless one knows how and is willing, to care for them from the day they are born.—Geo. H. Glover, Colorado Agricultural College.

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Afraid of steam engine.
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Kicking.
Biting. Striking.
Hard to shoe.
Bad to groom.
Breaking straps
Refusing to hold back while going down hill.
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Tail switchers.
Lolling the tongne.
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SPEAKING FROM EXPERIENCE.

To the American Breeder: In regard to Montana man's mares; he wanted to know the type of stallion to use on those mares to produce a class of horses suitable for the most profitable market. I don't think he can produce a high selling class of horses from any type of stallion. He might raise some good, general-purpose horses and a good many misfits, by breeding to a good Percheron horse not too large and coarse, say about 1,600 pounds. Whenever a horse, with a broncho grandmother, reaches 1,600 pounds and sells high, he gets his picture in the papers or some breeder's catalogue, and a lot of free puffs. And for every one that is not, there are about eighty or ninety that are very ordinary. To grade up a bunch of small mares, from the stallions side, is a long and disappointing task.

He states that none of them have specified the market he should sell his stuff in. That is a question nobody can answer and get it right; his produce would not be on the market for five or six years. I find it a hard job to raise the kind of a horse you want to. How often you see two horses, full brothers, not alike at all in any way. I believe if I had his mares, I would get a 1,400 to 1,600-pound horse for the first cross, and for the next, one that would weigh from 1,600 to 1,800 pounds; or else get what I thought was a good jack and raise mules and sell them young, say at six or eight months old.

Heavy horses will not reach the size of their parents when raised on the range, unless they are grain-fed. They will rustle through, but not do as well as smaller stuff. The bulk of the draft stuff range-raised, will run from 1,200 to 1,500 pounds. Yearlings will be about the size of suckers that are raised in Iowa.—A. B. Williams, Sherman County, Kas.

AZOTURIA.

To the American Breeder: At this time of the year azoturia is a rather common disease among farm horses. Horses that are kept in badly ventilated stables and fed on rich nitrogenous feeds without being allowed to exercise are the ones most often affected. This disease has been termed or called spinal meningitis by a great many people but this name should be discarded as the spinal cord and its coverings are not affected. Azoturia is primarily a disease of the muscles, usually affecting the muscles of the hind parts, but may at times attack the muscles of the front limbs. As the disease progresses the kidneys become overworked in the attempt to throw off the poisonous material from the blood stream.

If this process is continued for a certain length of time the kidneys will become inflamed, greatly reducing the chances of the patient's recovery.

The first signs of azoturia may appear soon after the animal is taken from the stable or they may fail to appear until the animal has exercised for several hours. Sudden lameness is usually the first sign to be noticed by the driver, this is seen by the knuckling over of one or both of the fetlock joints. The horse is inclined to hold back and is soon sweating profusely. If he is encouraged or forced to go further he soon loses control of the hind limbs and falls to the ground, being able to rise again only with great difficulty. The paralysis may be so severe as to prevent the animal from getting to its feet again during the course of the disease. The most characteristic symptom of azoturia is the coffee-colored urine which has a very peculiar odor.

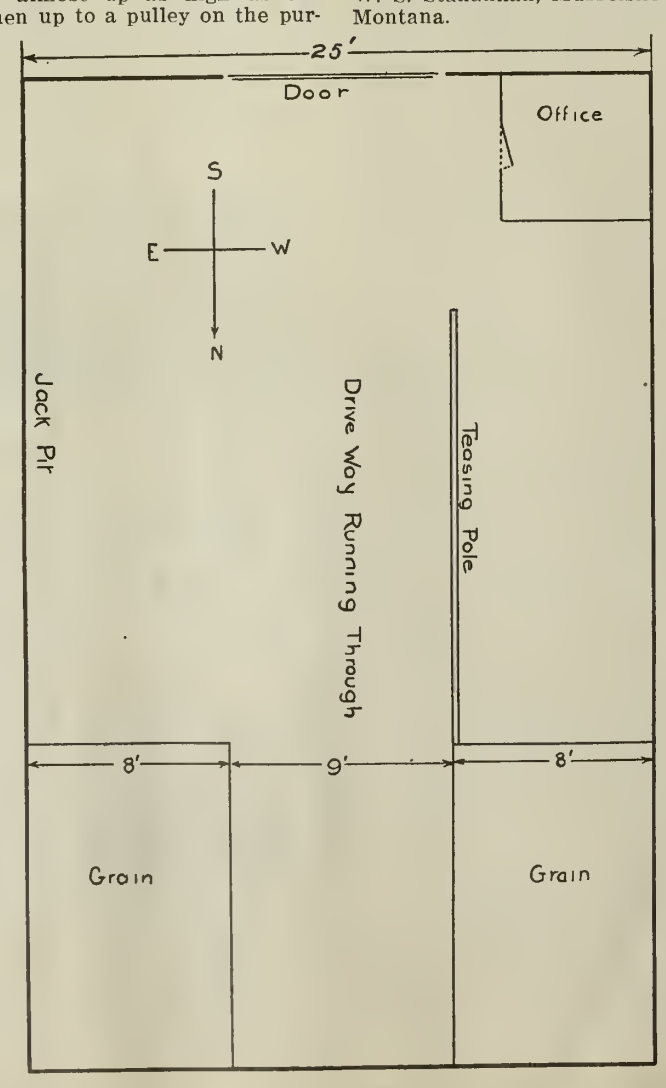
When this disease occurs while the animal is on the road he should be stopped immediately and if possible taken to the nearest stable. He should be well blanketed as the cold aggravates the disease. At times it will be necessary to use a stoneboat in order to get the animal to a place of shelter. A veterinarian should be called as soon as possible as the medicinal treatment should be begun early.

Azoturia may be prevented by reducing the animal's feed while he is at rest. Bran mashes should be given occasionally in order to keep the contents of the bowels from becoming dry and hard. The animal should be allowed to exercise in a lot or paddock for one or two hours during the warmest part of each day.—W. L. Boyd, Assistant Veterinarian, University Farm, Minnesota.

E. E. HALL'S BREEDING BARN.

To the American Breeder:—I constructed this barn myself, so I will try and tell you as near as I can how it is fixed inside. It is built on the south end of the granary, nine feet at the eaves and about 18 feet at the cone. This gives a good slope to the roof. It has two good purlin plates about the center of the rafters, which makes no posts in the center at all. This breeding barn is about 80 or 90 feet from the horse barn and has two rolling doors on the south to let the sunshine in. It has one window in the gable end on the south, and one in the office on the south. The office is six feet square and stands in the southwest corner of the building—door in the east side.

This building is far enough away from the manure that the flies and filth do not bother. The jack pit is on the east side of the building. With a pulley fastened to a rafter, I can elevate a bucket and wash out mares. In the back end of the pit I have a sink for all the water to settle away. The teasing pole is loose at one end so it can be raised by a rope from the loose end to a pulley at the purlin plate. When you get through teasing pull up out of your road to breed. This makes a pen eight feet wide and 14 feet long, for your stud, back of the teasing pole. You can turn your horse loose in there, or handle him from the east side of the building. I run a rope from the stud's bit to a pulley about the center of that 14 feet and almost up as high as the rafter, then up to a pulley on the purlin and stand at the east side of the building and then I can watch every move my mare makes. This is a big thing with a mare that is hard to show.—E. E. Hall, Anderson County, Kans.



BREEDING BARN OF E. E. HALL, ANDERSON COUNTY, KANSAS.

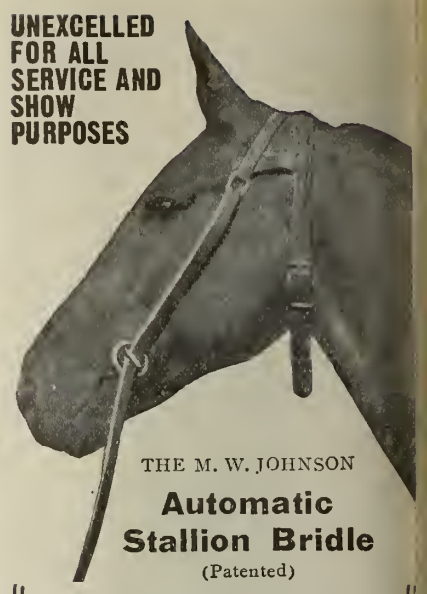
REGISTERED PERCHERON ON RANGE MARES.

To the American Breeder: Like Mr. Luckner, of Saskatchewan, Canada, I also, feel that it is time to "butt in" lest the Montana subscriber might be induced to use one of the lighter breeds of horses to cross on his small Montana mares. So to start with, I will qualify by stating that I have been thirty-two years among the Montana cayuses, and have observed the results of many different crosses on these rugged little mares, and for the last eight years my entire time has been given to breeding mares weighing mostly from 900 to 1,150 pounds.

I first used a pure bred Percheron with plenty of bone and weighing about 1,650 pounds and my range-raised three year old geldings from this stallion and these small mares sold during last spring and summer, right at home, for an average price of $132.00, and would probably have brought much more had I been situated so it would have been possible for me to feed them during the winter months. I have kept all my fillies from this horse, and my coming four-year-old mares, though range-raised, will now average in weight about 125 pounds more than their dams, and are a nice, even bunch, showing good Percheron conformation. Now, my observations lead me to believe that equal success can be obtained by using any of the draft breeds, but I would advise using a sire of known breeding excellence.

The get, from the lighter breeds crossed on our small mares, and range-raised, are usually wild and vicious. I would not advise keeping a mare weighing less than 1,000 pounds for breeding purposes, if she can be disposed of to advantage. Later I may give you my experience in crossing the small mare with a large jack.—W. S. Stananhan, Musselshell County, Montana.

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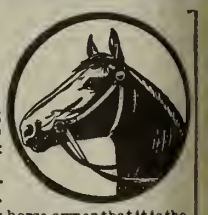


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THE KIND OF PERCHERON TO USE.

To the American Breeder: Relative to the breeding of small western mares, I would advise one to use a Percheron stallion, but not to select one of the large, drafty kind, but a clean, smooth-made one, with as much quality as possible and not over 1,600 pounds weight, but a fine bred animal. I believe he will get a class of horses that will make good farm and general purpose horses and there will probably be some of them suitable for, what the market calls, a wagon horse. I think he will get better results than to use a stallion of the light breeds.—G. H. Read, Kane County, Illinois.

NEBRASKA RANGE FOR DRAFTERS.

To the American Breeder: In answer to H. Kirchner's inquiry of March 5th, I will say: I have been located in this part of the state for twenty-eight years, have handled stock most of the time, principally horses and mules. People usually put up considerable feed, though most everybody's stock gets a good share of their feed on the range as the pasture gets matured before the frost strikes it and stock require very little feed or stabling. Land can be bought very reasonable. Land is very productive, grass in abundance, water the best and never failing. I have been in several western states and I think this is the best stock country I have been in for profit, everything considered. This is not a free range state, so the cattle kings can't come in and lick all the grass up and kill it out. I never was in a free range country and found



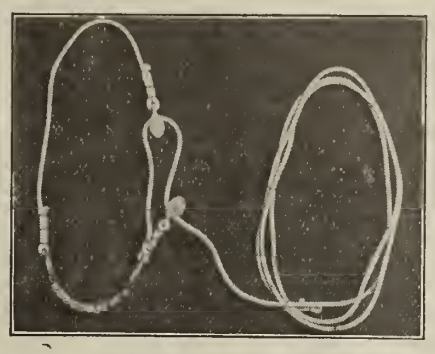
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ery much grass within ten miles of ater. When grass is so thin and carce that it does not pay to fence ne land, then it is best to have free ange.

I think draft horses will do as well n the range as any kind, if they are aised in the pasture; but any horse nat has never been used to anything ut a barn would fare poorly on the ange in the winter time. Draft horses an be raised as cheap here as any lace and be developed into much ardier, and give more service than he horse raised in the east, pamperd up in a barn.—J. W. Smith, Keyaaha County, Nebraska.

ROM ONE WHO SOLD GELDINGS AT $325.

To the American Breeder: I have een in the horse business all my life, long with handling all kinds of stock, eeding, shipping, buying and selling. have never seen the times so favorble for the farmer as right now. As o heavy horses, every farmer ought o own and breed as many big, heavy nares as he can care for properly. here is no machine made so thorughly reliable for moving heavy loads nder all conditions as are the big orses. Look back to your papers of few weeks ago and note the effect f the big snow on the use of the auto ruck. Automobiles of all kinds were ied up, but the big, heavy horse was here with the goods, rain or snow, eat or cold. The big, honest, draft orse did what the high-priced mahines failed completely to do. Don't e afraid to breed them; breed the ight kind; breed the biggest you can ind and they will always sell.—Porer C. Taylor, Montgomery County, Missouri.

BUT NO ONE SAYING ANYTHING ABOUT PAYING."

To the American Breeder: It would e good if we had a law to collect for oal when a man sells the mare beore foaling, and to collect for breedng service when a man sells the nare two or three months after breedng before the mare goes out of the county. It most always gives trouble o collect when the mare is in the econd or third man's hands. Can I collect for breeding services after a couple of months breeding? Or must I wait till she has a colt or until she goes out of the county?

Often before you know it, the mare s sold to the second, third or fourth nan, and after all was sold to a 'mover" and she is gone. You ask he first man: "Was the mare in foal?" "Well, I don't know." You ask the second man: "Was the mare in foal?" "I think she was." You ask the third man: "Was the mare in foal?" "Yes, she is in foal." But as I said, no one saying anything about paying for the colt. They say: 'I traded or sold her to a 'mover,' I don't know his name or where he lives." This is my experience. If such man lives near you, you hear about it, but if he lives ten miles or more from you, you will then have trouble. How is this thing to be helped out? Please give me law or information.—J. A. Friesen, Marion County, Kas.

NATURAL RANGE BREEDING CONDITIONS.

To the American Breeder: In your issue of March 5th, Mr. Custer A. King, Lyons County, Kas., wants more about natural breeding conditions. I have seen it under these conditions; if fillies are on good range and do well, practically all of them will take the horse at two years old, and this is the proper age for them to commence breeding to make good broodmares out of them; that is if they are well cared for. Where they run at will (and lots of people don't know this) most stallions won't serve his own colts. He will let them run in his bunch till they need the horse, then he will commence to try and chase them out. It is also true that lots of fillies and mares won't let their own kin mount them. Where they take the horse at two years old, there should be ninety per cent colts and at all the rest a little less; this is where they mingle and are not disturbed.

Among all the range horses I ever saw, seventeen months was the youngest I ever saw fillies take the horse and that was a two-year-old colt that did the work. I have seen only two take the horse this young. This is too young, as the colts never amount to much. Mr. King also wants to know what per cent will settle where they are handled and tended to by man, only allowing one or two services to the mare. I will say, seventy per cent of the two-year-old, fifty per cent of the three-year-old, and sixty per cent of the four, five and six-year-olds.

Mr. King also asks at what age will a mare cease to be fertile if not bred. I will say "he has handed me a hard one," as I have never seen it tried out. So I want someone else to answer his last question that has seen it tried uot. But I would say "never, if uterus was not paralyzed or grown shut or something else was not wrong with the uterus."—L. D. Carter, Canyon County, Idaho.

Editor's Note: In the American Breeder of August 5, 1913, appeared the photograph of a Standard-bred mare 35 years old, with her first colt. The photo and information came from J. A. Watkins, Warren, Ark., who owned the colt's sire.

NINE COLTS FROM SIX MARES.

To the American Breeder:—I saw in the last paper, of March 20, about a man in Indiana who has a mare that had triplets. I will give my experience with the double-barreled kind. I have raised colts for fifteen years and had never had a mare foal more than one colt at a time until last spring. I had treated my mares with the barren mare treatment because they would not get in foal, and in the spring of 1913 I got nine colts from six mares. I think that is the record. One had twins and they were dead. They were from a grade Percheron stallion. The next in order was triplets, lacking twenty days of foal time; two were dead and one lived twenty-four hours and died. The mare had no milk and I gave it cow's milk, half water and sweetened, but the colt died with the colic. While I was taking care of it another mare went up the pasture, a few minutes out of my sight, and foaled a colt on the creek bank and it got drowned. It was the best colt I ever saw, it weighed over 200 pounds. The next in order was two old mares and one four-year-old. Two of them went a year but all three foaled good colts. Chauncey Gilbert, Wabasha County, Minn.



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THE BRAND OF THE FIGURE 2.

To the American Breeder:—Some weeks ago I saw an inquiry in the paper about the Figure "2" Ranch at Van Horn, Texas. About 125 miles east of here is the headquarters of a very large ranch called the Figure "2" having the Arabic numeral "2" for its brand and owned by Young & Dougherty. They have a great many sections of land under fence in that vicinity and I believe they also have a development ranch in Kansas.—E. L. Watrous, El Paso County, Texas.

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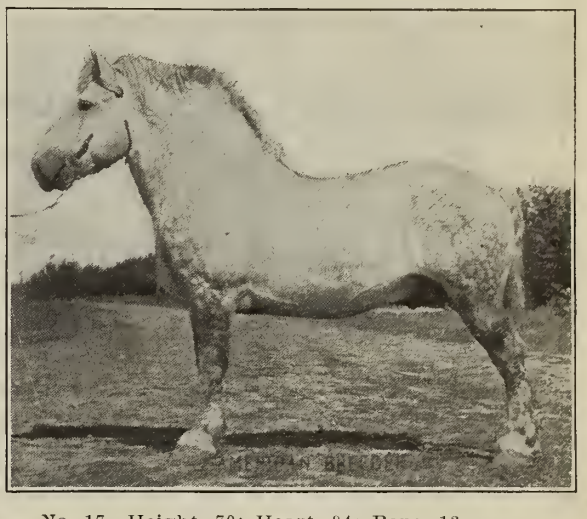
BELGIAN STALLION SHOW; SEE PAGES 1, 5, 7, 11, 15 and 19



No. 48—Height, 71; Heart, 85; Bone, 10.



No. 19—Height, 69; Heart, 96; Bone, 11.



No. 17—Height, 70; Heart, 94; Bone, 12.



No. 9—Height, 68; Heart, 95½; Bone, 11.



No. 46—Height, 66; Heart, 94; Bone, 10½.



No. 50—Height, 64; Heart, 92; Bone, 11½.



No. 12—Height, 66; Heart, 90; Bone, 12.



No. 45—Height, 66; Heart, 92; Bone, 11¼.



No. 35—Height, 68; Heart, 95½; Bone, 10½.

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A special breeders' microscope for use in testing the semen of stallions or jacks. Equipped with special lens for this purpose. Boxed in fine case. Every breeder should have a microscope to test and prove the sureness of his sire. Any boy can learn to test the semen. Full directions accompany each order. **Price, each, $35.00.**

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A standard clinical thermometer used by veterinarians. A metal case which insures it against breaking, with chain attached which may be pinned to the vest pocket and carried with safety. Extra length, tested and should last a lifetime. **Price, $1.25.**

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Three sizes, small, medium and large. Stallions weighing 1,200 to 1,600 pounds usually require a medium size. These bags are guaranteed not to tear from any cause, before March 1, 1915. If they do tear before that time, return the top part with our stamp on it and 50 cents in cash and we will send you a new bag. **Price each, $1.50.**

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Send money orders or draft, as exchange is charged on personal checks. Always name Express Office as well as Post Office address, in order to insure prompt delivery.

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THE KANSAS CITY IMPREGNATOR COMPANY

TWELFTH and CENTRAL STS., KANSAS CITY, MISSOURI

THE AMERICAN BREEDER

With which is combined
THE STALLION AND JACK NEWS.

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POOR USES FOR PROFITS.

Not so many years ago a firm of importers started with nothing but by following a successful plan of selling horses, they soon amassed a fortune. Money came so easy that they forgot its real value. They seemed to think that this money would last forever. They wined and dined their friends in an extravagant manner and hardly ever asked the price of unnecessary things. A few years ago times began to change. They had formed the habit of spending money extravagantly. They had ceased to make money. This condition, we all know, ends in disaster sooner or later. A short time ago misfortune overtook them and everything they possessed in this world was taken from them, including their extravagant automobiles. They are now afoot and a great change has come over the members of this firm. These men are now in a position to converse with ordinary men. They have begun to see the "light of day." It is easy to see our mistakes when it is too late.

It is peculiar what a great difference there is in the character and disposition of different people under the same conditions. Just why one individual wishes to make an extravagant display without accomplishing any useful results is more than we can understand. The money squandered by this firm could have benefited hundreds of poor families and laid the foundation for educating many bright boys. There is opportunity for every man to be of some real service. In every community there are a good number of worthy young men or boys who need the attention of some one able to give good advice. How much good these importers could have done in the world by spending their money in the advancement of the rising generation. This would have given them greater pleasure in after years than trying to shine at the head of the extravagant class.

Another family of breeders with whom we are familiar, is living a life much different. They are well fixed financially, but do not enjoy themselves. They even deprive themselves of necessary equipment in their business. All they think of is to accumulate a vast fortune. No recreation is a part of their program. The entire family is restricted in expense accounts. They are aging rapidly. In the near future a large amount of money will be left, perhaps to become the center of litigation.

The lesson to be drawn from these two firms of live stock men is to be reasonable and temperate—in spending and in saving. Each and every day should be looked upon as one of our brightest days. Life is very uncertain, both for the spendthrift and the miser. Some effort should be put forth each day to make the world a little better for those with whom one comes in contact.

TIME FOR THOUGHT.

Most of the breeders are now very busy. Every mare presents an opportunity for a different line of thought. Each individual should be studied separately. The old plan of breeding all the mares that come without any hesitancy, should be a thing of the past. Each and every one should be carefully examined. It now requires on an average of three and a half services for each mare producing a colt. With a little more care and study the average stallion should be able to accommodate a great many more mares successfully, even with the natural service. The breeder who spends his time sitting around, without thinking of his business, is not progressive. The breeder who believes that a little extra effort is wasted will not collect for the highest per cent of foals.

There are many things to be looked after carefully at this time of year. When a mare is presented for breeding, without a colt by her side, and one which has been bred the previous year, there must be a cause for it. A careful study of that particular mare should be made and notations made concerning her in the record book. All record books should be preserved so that in case a mare is presented a year or two later, the results can be studied. After all it is attention to the little things in practically every line of business that get lasting results. The haphazard method of doing business in all lines is going out of date. The thoughtful, industrious man will succeed.

WHY VIOLATE THE LAW.

An Iowa subscriber writes that the question of docking horses in this country was being discussed by a group of horsemen, when the statement was made that 70 per cent of the yearlings shown for the Percheron futurity money at Des Moines last fall were docked. In behalf of docking he states that a docked tail can be dressed to show off a horse's hindquarters better, but granting that he wants to know why people do it when the Iowa law makes it a "penitentiary offense."

We are willing to print the answer of any reader who can suggest a reasonable explanation. This discussion need not be limited to Iowa, as very likely other states have laws on the docking of horses.

REGISTER JACKS AND JENNETS NOW.

After June 1st new rules will go into effect in the Standard Jack and Jennet Registry of America, which will forever bar a lot of animals that can be registered now. All jacks measuring 58 inches from the highest central part of the withers to the ground, 62 inches heart girth, seven inches around the smallest part of the leg between the knee and the ankle and jennets measuring 56 inches high, 60 inches around the girth and 6¾-inch bone, can be registered now. The fee is $2.00 to non-members; $1.00 each for members. The membership will cost $10. Every one owning a jack or jennet of any color that will fill these measurements should immediately send for application blanks and have his animals registered. All applications must be at the registry office before June 1st. Wm. E. Morton, 920 Scarritt Bldg., Kansas City, Mo., is secretary. Do not put it off but attend to it immediately.

This is the largest jack record in the world and the most substantial. Those who have animals registered in any other jack record can send their certificate to Mr. Morton with applications properly filled out, and have them registered free of charge, provided they meet the requirements of the Standard Jack and Jennet Registry of America.

A great many have taken advantage of this offer, which means that there will only be one large jack record association. The time is rapidly coming when jacks must be registered to find a satisfactory sale. The public is demanding registered jacks for public service: Those who have overlooked this opportunity may repent at their leisure. The buying public is willing to pay the extra price for jacks registered in this association.

WERE THEY SMOKED OUT?

For about two months now there has been missing from the columns of a certain prominent live stock paper the advertising of one Percheron breeder and one importer whose announcements it used to give conspicuous position. Both of these men have been barred from the American Breeder ever since their business methods became known—one for about three years; the other much longer. While the American Breeder was exposing the methods of these men and thus warning its readers, the other paper was boosting them and receiving big pay for their advertising.

Yes, you see the point all right. * * * Were they "smoked out?" Well, maybe somebody did "build a fire" under the paper. Did you help?

OLD COUNTRY PRACTICAL EUGENICS.

Following the discussion, opposition and finally the defeat in court of the Wisconsin marriage law, requiring a medical test, which costs more than the fee which the law provides, a Western exchange suggests a way in which the intended benefits of the Wisconsin law could be largely realized, merely by proper care and insistance of the parties concerned.

It cites the custom in Italy, where usually the father and mother ask the young man who seeks their daughter, if he is insured. If he is not, they urge him to take out insurance before the wedding and sometimes they insist upon it. They put the argument for it on the usual grounds, the risk of his dying suddenly and leaving his family penniless. But what they are often most concerned about is assurance as to the suitor's good health. They feel satisfied that if he can get insurance there is nothing seriously the matter with him.

If our people could be brought to adopt this plan the delicate problem would be solved to the satisfaction of all concerned and without embarrassment to anyone. Possibly it might be well to have a law passed requiring the groom to take such action. The intent of the Wisconsin law is undoubtedly good, and such a law made enforceable not only would protect the cautious and well informed, who might protect themselves, but what is more necessary, it would protect the heedless and unsophisticated, and "the babes unborn."

A CONDITION AND A REMEDY.

In the past few years, through some of the modern dramas, through public societies working for better conditions, and through the news of politics and the courts, we have become familiar with the terms, "social evil," "double standard of morals," "vice segregation," "wild oats," and so on, but only in the case of a few criminal court stories, has the talk and the newspaper articles made clear the direct cause and effect relation, which the behavior of men holds to much of the suffering of women and the blindness and other infirmities of children. Within a year the papers of Kansas City told how a young woman died as the result of an illegal operation, to which she resorted to prevent the birth of a child by some one of several Kansas City high school boys with whom she had cohabited. It was all shocking and terrible enough, yet no one came out to show that the customs prevailing among the "young bucks" (often members of socially prominent families) of this and most other cities, are such as to favor the rapid spread of diseases which later on bring suffering, death and secret degradation to the families of many of them. Nowadays (in the cities, at least—and probably no rural community is entirely free from the taint) only the most carefully reared boys and the few most clean and strong morally, ever pass high school age without becoming more or less familiar with commercialized prostitution. The terrible results of this condition should surprise no one, yet (since their very nature forces them to be kept secret and hidden) no one excepting the physicians and a few social workers have any conception as to their extent.

A man steals a horse, and gets caught. He goes to the penitentiary and is branded forever. Only by the barest chance can such a man reform, hide his old identity, find a good woman for a wife, and sometime have a home. But men by the thousands, go to houses of prostitution. Some even are caught in raids, but city officials or the police being a part of the condition which permits this thing, can always be persuaded to turn them loose and suppress their names. Such men are committing a moral crime infinitely worse than horse stealing, yet the same night (if they can get sober), they can enjoy the last half of a fashionable ball; the same month one of them may marry the purest girl of his neighborhood; there is no restric-

BREEDING CHARTS YOU CANNOT BUY

SUITABLE FOR FRAMING

A set of breeding charts showing the male and female genital organs of horse or jack stock, is something every breeder needs to have in his barn or office. We have had such a set prepared—three charts, rolled in a pasteboard tube, so they will carry safely. They are not for sale, but we will send the set free upon request, to everyone who sends us in ten subscriptions at the special 25 cent rate for 9 months; (one year, exclusive of the three summer months.)

tion except what they put upon themselves.

What is the remedy?

In this, as in all other wrongs, one powerful remedy is publicity. By our laws and law enforcement methods now, the woman always gets the worst of it. If our law was right, our courts fair, our newspapers courageous, every time a man was caught in a raid, in a house of prostitution, of gambling or disrepute of any sort, he would suffer punishment in keeping with the damage which his conduct does to society; his name would be made public (not only as news, but as "legal advertising" also), and the owners of the property in which he was found would be punished for their part (even though only through negligence) in contributing to such a condition.

Did you ever hear of such a thing being done? Do you suppose the vice districts in every city would continue to grow and exert their powerful influence on politics and their blighting influence on human life, if such a thing was always done? Yet there would be absolutely nothing out of the way or unreasonable in such a regulation. It would be mild as the merest play compared with pain and shame which is the daily penalty paid by good women in the absence of such regulation.

But neither this nor any other remedy will effectually be applied until the best people understand matters more fully. Thousands of good men, who have no part in the debasing conditions, hesitate to tell those dependent upon them the truth because of the difficulties of the subject. For this reason (that the right minded may not think wrong, or fail to act in the right from lack of knowledge), we say what we have said, and print, in another department, the communication of Helen Keller to the Kansas City Star.

SPRING WORK AND PNEUMONIA.

To the American Breeder:—It is easy for horses to contract pneumonia during the spring months. The days are warm and in Colorado as soon as the sun goes down it is extremely cold. If the horses have become warm from work and stand unblanketed for an hour or more in the wind, they readily take cold and frequently the lungs are affected.

Pneumonia is inflammation of the lungs, the horse has a high fever, 105 degrees, and the pulse is so rapid in many cases that one cannot count it. The animal refuses feed, the hair all over the body stands erect, the breathing is labored, the eyes partly closed and inside of lids very red. If one sees the horse in the early stages he will notice the animal having a chill the same as a person. The surface of the body is cold, while the inside of the animal is hot with fever.

Put your affected horse in a box stall where there is plenty of air but do not allow the wind to blow on him. Put a mustard plaster over the lungs, of equal parts mustard and flour. Then cover with two or three warm blankets. Give the horse all the water he wants. Give him any feed he will eat. You can keep the high temperature down by frequent rectal injections of cold water. If your patient will eat bran mashes they will be valuable in keeping the bowels laxative, as the high fever has caused constipation.—C. L. Barnes, Colorado Agricultural College.

EVERY HORSE TO READER OF AMERICAN BREEDER.

To the American Breeder: Every horse we have sold this year went to a reader of the American Breeder, and in most cases to a student of the Graham Breeding School. We find the American Breeder an excellent advertising medium.—W. H. Bayless & Co., Linn County, Kansas.

The Fundamentals of Breeding

LESSON IV; RELATION OF DAM AND EMBRYO

By H. W. Vaughan of the Iowa Agricultural College

What is the relation of the dam to the developing embryo? This question may be answered in few words. After the ovum is fertilized it becomes embedded in the lining of the uterus or womb. The mucous membrane lining the uterus is richly supplied with blood vessels and the blood of the mother brings oxygen and food material to the embryo and carries away the carbon dioxide and waste material. The quantity of yolk contained in the ovum is sufficient to provide nourishment until the embryo has become established in the lining or wall of the uterus.

As the embryo grows and increases in size it projects more and more into the uterine cavity. In a short time the placenta or "after-birth" is formed. The placenta is first developed by means of a number of little outgrowths which attach the early embryo to the wall of the cavity within which it lies. These grow into the uterine tissue around the ovum and they perform two distinct functions—first, they fix the embryo in position, and, secondly, they allow the maternal blood to circulate in the spaces between them. From this blood the embryo derives its nourishment.

The placenta is partly developed by the uterus and partly by the embryo and the connection between the placenta and the embryo is by means of the umbilical or navel cord. The placenta supplies the embryo with nutrition; it serves also as an organ of respiration for the embryo whose lungs are, of course, not in use, and it acts in the same way as the kidney does in after life, by excreting certain products. The dam provides the growing embryo with nourishment, warmth and protection.

Although the blood of the mother brings food material to the embryo, the blood does not enter the embryo. One of the first steps in the growth of the embryo is the development of the blood stream. The mother's blood comes to the outside of the structures which have been mentioned, while the blood of the embryo comes to the inside. The blood of the dam is separated from the blood of the embryo by tissue through which food material passes inward to the embryo and waste passes outward.

There is thus no exchange of blood between mother and embryo, as many persons imagine. The force called osmosis or the equalizing of liquids is the means by which the embryo is nourished from the mother's blood. The relation of the dam to the embryo is much the same as the relation of the soil to the growing crop.

It is sometimes thought that animals inherit more qualities from their dams than from their sires because of some supposed opportunity for the dam to influence the inheritance during the period of pregnancy. There is, however, no possible means by which the dam may impart her likeness to the embryo during pregnancy. Her chance to do this ended at the moment her ovum was fertilized by the spermatozoon of the male.

One thing she may do, however; she may nourish the embryo well or she may nourish it very poorly. In this way she may produce a strong, vigorous offspring or a weakly one. But she cannot change or alter the inheritance during the period of pregnancy.

Breeders should see to it that the pregnant female is well fed during the gestation period. It must be remembered that the dam requires enough feed to provide for her own bodily needs and at the same time build up the unborn animal. She should also be in a high state of health, hence should have plenty of fresh air, exercise, good water and the best of care. If the dam is fat it is not always true that the embryo is being well nourished. Fat is not always a sign of health. Very fat cows and mares sometimes give birth to very small, scrawny offspring.

The strength and vigor of offspring is also largely determined by the health, strength and vigor of the parents at the time of mating. Weak parents produce weak germ cells and weak germ cells result in weak offspring. However, the reader should not interpret this to mean that a weak parent has less hereditary influence upon the offspring than a strong, vigorous parent. A weak parent has an equal chance to transmit its characters to offspring.

Some persons firmly believe in what is called "mother-marking," or the power of the dam's mental impressions to affect the developing embryo. There is positively no path by which the mental impressions of the mother may reach the embryo. Yet today, in hundreds of instances, mares are no sooner bred than they are wheeled about in order that they may get a good look at the stallion in the hope that the mental picture may in some way affect the development of the foal.

Buildings and fences have been painted the color desired in calves, and in many instances striking or unusual characters in both men and animals have been explained on the basis of some mental impression supposed to have been made upon the mother during pregnancy. Some of these explanations have been ingenious and have been rather generally accepted in the communities where the unusual results occurred.

Every case of mother-marking which has been investigated has admitted of just as satisfactory an explanation on grounds strictly in keeping with the facts of embryology. It is true that extreme fright may affect the nutrition of the embryo for a time, and even at certain stages of pregnancy result in abortion, but the assumption that color of hair, shape of head, or any other character is dependent upon mental impressions seems absolutely beyond the range of possibility.

Another equally valuable theory claims that when once a female has borne offspring to the service of a certain male, all her subsequent offspring will be affected by the first mating or matings. Dog fanciers seem to have been most strongly convinced that this is true. If a valuable bitch chanced to get in whelp to a cur dog, her value as a breeder was thought to be destroyed for all time, because a supposed taint from the cur litter affected later litters sired by dogs of her own breed. It was supposed that she could never again produce a strictly pure-bred litter, no matter how mated.

As a matter of fact, a bitch bred to a cur dog is no more injured for future breeding purposes than an incubator used for hatching eggs from grade of common poultry is rendered useless for hatching eggs from pure-bred fowls. The dam of Star Pointer, 1:59¾, produced two mule colts before she foaled the famous pacer. Most dog breeders now believe this theory to be the quack order and no longer destroy bitches which accidentally produce a litter by a cur dog.

SHOULD BREEDING CONTRACT DRAW INTEREST?

To the American Breeder:—The American Breeder can't be beat. I will say that a man who knows what good it actually is to him must be a little wrong if he does not take it as long as he can get enough money to get hold of it. I think it better for a man than any veterinary book, for everything is explained so that any one can understand it. But some would think nothing of paying from five to ten dollars for a book and after reading could not decide what remedy to use.

I would like to get a breeding contract fixed to draw a rate of interest after the colt is born. If it draws no interest they are slow about paying. If it draws, they will go and borrow it. I have had men say they did not have the money and did not like to borrow. I look at it this way. The man owning the horse, whether he paid cash or bought him on the installment plan, pays interest. A fellow gets a poor per cent when some leave the country before you know it. Others wait sometimes until you have to sue them. Sometimes you will let some good, honest neighbor put you off for a year or two. They are getting the good of the horse and I am losing all the time and feed till he is paid for; also running the risk of getting him knocked out, so I would lose the whole thing. So I think the stallion owner should have the interest on breeding contracts after maturity.

I would like to have this question brought before the readers to see what their opinion is on this. I have been talking to several breeders about this protection. They seem to think it would be all right, but nothing gained so far. I would like to see it made a penalty, of any way double the price of service fees, where they leave the state. I had fellows move to Montana with six mares, so far. Is there any way I can collect for them?—M. F. McGeorge, Boyd County, Nebr.

IN PROSE AND POETRY.

To the American Breeder: There is an epidemic of laryngitis or sore throat, in northeastern Ohio and western Pennsylvania, which is causing considerable trouble among the farmers. Quite a number that take on the severe form, and a few have died from suffocation, but these cases were not properly treated.

There has been some trouble among the dairymen, with abortion and navel trouble: and it seems one of the hardest problems to solve; why stockmen and breeders will not avail themselves of the best means to inform themselves on how to protect their stock from diseases, and avoid loss. It is alarming, when we look at the amount the losses figure up to in this country each year from the different causes that might be avoided; if the farmers would post themselves through a subscription to the "Breeder," the best publication sent through the mails.

The "Breeder" is a paper that no one can blame for printing the truth and gaining its fame. It is famous for Truth, for Wisdom and Wealth; for Justice and Strength, and Animal Health. Its columns are full, from beginning to end, of judgment that brings good business to men. Now avail yourself of it at the earliest date while the editors offer such a favorable way. Three years for a dollar. "Great guns," what a snap; all that a man can crowd under his cap.—C. A. Rickard, Ashtabula County, Ohio.

NONE BETTER FOR A STOCKMAN.

To the American Breeder:—I am sorry I have neglected renewing my paper until now. I could not get along without it any longer. There is none better for a stockman or anybody that is interested in any kind of stock.—Louis Fruth, Saint Clair County, Ill.

Minnesota Acts on Dourine

The recent outbreaks of the fatal sease, dourine, and the danger to orse interests in any locality where may gain a foothold, has led the eterinary department of the Minneota Experiment Station to put out a illetin on this subject. In this bultin the author, Dr. W. L. Boyd, says:

"It seems advisable to issue a genal warning to all owners of horseeeding stock, especially to owners stallions which are liable to come contact with Western mares, urgg them not to allow their stallions serve range mares that have not een ln Minnesota for more than one ear.

"Owners of mares should not atronize stallions that have come om Montana, North Dakota or South akota within three years, or other allions, unless their breeding-history well known. Owners of healthy eeding-stock cannot afford to take ances. Infected stallions should be strated and infected mares killed, gardless of value.

"Dourine is a specific, and usually slow-going disease of breeding orses, accompanied at times by swellgs of the external genital organs. is highly contagious, and often reults in death after many months of tense suffering. It only occasionly occurs in the acute form.

History and Distribution.

"Dourine is widely distributed ln urope and has appeared at various eriods in the United States during ne last 31 years, being discovered rst by Dr. W. L. Williams in Illinois, 1882. This outbreak was due to the nportation of a diseased Percheron allion from France and was persumbly eradicated. In 1892 dourine was eported in Northwestern Nebraska. 1893 the Bureau of Animal Indusy of the United States Department Agriculture found 30 diseased anials in Nebraska and five in South akota. After this outbreak, dourine as not heard of again until 1898, hen it was reported to be present in ne same region of Nebraska that experienced the initial outbreak. The overnment work was so thorough hat the disease was completely eradiated. Dourine appeared next in Iowa 1903, but this was quickly eradiated by the combined efforts of the ureau of Animal Industry and state fficials. In 1904 the disease was reorted to be quite extensive in Northestern Canada, and during the sumner of 1911 it was reported in Southestern Iowa. While this outbreak hreatened to be a serious one, it was oon under the control of the state fficials who worked ln conjunction ith the Federal experts.

"During 1913, dourine has been ound to be quite extensive in certaln arts of Montana among range horses. ome animals, perhaps a considerable umber, have been imported from the ontaminated district into Minnesota. he State Live Stock Sanitary Board ocated and disposed of several anials whlch had recently been imorted, the warning notice of a susected shipment of diseased and exosed animals havlng been recelved rom the Federal authorlties. It is ot very probable that any more anials from the infected district wlll ind thelr way into Minnesota.

Cause.

"Dourine is caused by a low form f mlcroscopic animal life slmilar to erms. It is transmltted by the stallon to the mare or by the mare to he stallion, during service. Dourine loes not spread through other conact; neither is lt carried by flies or icks as in the case of other diseases f a simllar nature.

"Dourine, according to some, may e elther acute, i. e., quick and destructlve, producing death in a short lme; or chronlc, whlch is the slow form, continuing over a considerable time before producing death. The chronic form is by far the more frequent. The onset and course of the disease is so slow that it often has an opportunity to spread over a considerable area before its true nature may be determined. The chief symptom noticeable in the chronic form is the gradual wasting away of the animal's body. The first symptoms may appear within 10 days after breeding, although they do not usually appear for a month or two. The symptoms



Fig. 1. The Cause of Dourine

This microscopic animal, called a trypanosome, lives in the blood. It is closely related to the organisms that cause sleeping sickness in man.

of a typical case of dourine appear in three distinct stages.

"In the primary stage, the first symptom noticed after breeding is a thick, sticky, odorless and colorless discharge from the sexual organs of either the male or female. These organs may also be swollen, but the swelling may easily be overlooked by the owner, unless he be a very close observer. Sexual desire on the part of the stallion may be increased or decreased. Mares urinate at short lntervals and present symptoms that are characterlstic of the heat period. The temperature may be elevated, although this ls not always the case. Doughy swellings may be present in the testicles and along the sheath. The fore and hind limbs may also be enlarged. The appetite, as a rule, remains unchanged until the later stages, when it becomes irregular. The dlscharge from the genital organs of the female has a tendency to accumulate on parts below, removing the coloring matter of the skin and leaving small, hairless white spots.

"In this period, the skin and lymph glands (small bean-shaped bodies which act as a filtering system) become diseased and the affected animal loses flesh rapidly, notwithstanding the fact that the appetite remains good. The animal at this time experiences the loss of muscular control in the hind legs, and symptoms of lameness become noticeable. Knuckling over at the fetlock joint, together with the swelling of one or both hock joints, may be noticed. The swellings of the genital organs and those that appeared along the abdominal wall, become less sensitive. It is during this stage, in typical cases of dourine, that the eruptions of the skin similar to those of nettle rash appear. These eruptions, variously called 'dollar marks' or placques, may occur at any place on the animal's body, but are usually confined to the regions of the neck, shoulders and loins. They are usually of short duration and may be overlooked. These are neither hot nor painful. The animal lies down a great deal at this period, and at times experiences trouble in getting up, on account of the increasing lameness or paralysis of the hind legs. The appetitie remains fairly good. The lymph glands become greatly enlarged and form boils which discharge upon the surface.

"In plain cases, the third or nervous stage may find the animal unable to rise or stand unless supported. The temperature may be above normal at this time and the appetite is poor and irregular. The loss of flesh progresses rapidly, and slow, angry-looking ulcers may become widespread over the body. Owing to the intense suffering, the animal is usually destroyed.

"Dourine runs it full course in from one to two years. About eighty per cent of the affected animals die, and recovery is possible only at the beginning of the disease. Although the symptoms just described are typical, such, plain, clear-cut cases are not common. Many cases of dourine wlll be found wherein a gradual loss of flesh, accompanied by lameness, wlll be the chief symptom noticed.

Diseases Mistaken for Dourine.

"Swamp fever resembles dourine on account of the gradual loss of flesh while the appetite remains good and even ravenous. The chronlc form predominates in both diseases. The history of the animals before becoming diseased, however, and the manner in which the disease spreads, together with the swelling of the genital organs, will serve as a means of distinguishing between the two diseases.

"Dourine may easily be mistaken for what is known to veterinarians as vesicular exanthema, which, however, appears in the acute form, affecting the genital organs without producing a constitutional disturbance. The period of incubation or the time between exposure and appearance of the symptoms is very short in vesicular exanthema. While vesicular exanthema affects the genital organs much as dourine does, it lasts only a short time and yields to treatment readily. Small, colorless, bald spots resulting from the discharge from the affected organs may also be noticed in animals affected with vesicular exanthema. Urticaria or nettle rash may at times be confused with dourine because of a similarity of eruptions occurring on various parts of the body. Urticaria, however, is of very short duration, often disappearing over night.

"Dourine may be determined by examination of the blood long before any characteristic symptoms of the disease appear. The blood test is a highly technical laboratory process. The blood is collected and sent to the laboratory, where it is determined, by certain changes of the blood, whether the animals are healthy or diseased.

Treatment.

"Drugs or medicines are of little or no value in the treatment of dourine, so it is necessary to resort to preventive measures. The following rules should be strictly adhered to:

"1. In districts where diseased animals appeared or where exposed animals are present, all mares should be examined before being bred. When mares are affected with a discharge, and swelling of the genital organs is present, they should be rejected, and not bred until all such symptoms have disappeared.

"2. Frequent examinations should be made of the stallion to make sure he is free from disease. If the male organ is found diseased at any time the stallion should be removed from service until the nature of the condition can be determined.

"3. Information regarding suspected cases of diseased stalllons or mares should be readily given, as lt wlll aid materially in the control of the dlsease which is spread only by breeding. All suspected cases should be reported promptly to the Live Stock Sanitary Board."

THE MATURE BELGIAN STALLION SHOW

PICKING OUT THE BEST ONES.

In this issue (see pages 1, 5, 7, 11, 15 and 19) we print pictures of the Mature Belgian Entries in the American Breeder Stallion Show. Under each picture is printed the stallion's entry number, and the required three measurements, in inches. Several more entries to this show were received, but in a few cases the photographs were not suitable for making cuts, and in a few others the animals were not recorded in the National Register of Belgian Draft Horses, which is one of the qualifications we required. We still have 16 states represented, ranging from Pennsylvania, in the East, to California, in the West, and no one will deny that many fine specimens of the breed have been brought out.

Now for the awarding of places.

We have asked a committee made up of five actual breeders, five importers, five college instructors in animal husbandry and Secretary J. D. Conner of the National Register of Belgian Draft Horses, to select (judging from the photographs and measurements in this issue) the best ten animals, and rank them in the order of their excellence. Their report will be printed as soon as possible.

Belgian Stallion Show Pages 1, 5, 7, 11, 15, and 19



No. 35—Height, 68; Heart, 86; Bone, 11.



No. 32—Height, 68; Heart, 94; Bone, 12.

How Honest Men May Disagree

A Minnesota subscriber has taken exceptions to answer given in the American Breeder to a published question asked by another subscriber. We are always open to criticism as we make no claims to infallibility. The man who claims he never makes mistakes is not normal and we plead guilty to being just about normal. The man who is always right has yet to be born. While we deny neither the possibility nor the probability of our making a mistake, the chances are in our favor as we give these questions considerable thought and study, based upon careful study and close observation, before we publish our answers. It is just barely possible that our critic may have started with the wrong major premise, failed to get the proper perspective, or mistaken cause for effect.

Have you ever examined an object through a microscope? If you have you know that unless you get the instrument properly focused you will get very little light on the subject of your examination. You may get almost the right focus, nearly enough that you can form some ideas of the conditions it reveals. You may make the mistake of thinking that you have it focused exactly right, and turn from the examination with an absolutely erroneous idea about the thing you have been investigating.

Now, the fault is not in the microscope; it is not in the subject; it is not, necessarily in your eyesight or faculty, but it is in your failure to get the right focus, the proper perspective.

Now, Mr. Critic, make the application. Be sure that you know what the question is; that you understand it and know what information is sought. Then be sure that you understand the meaning of the answer; that you place the proper construction on the different statements. Also bear in mind that there may be honest differences of opinion between two or more persons and that your opinion is just as likely to be faulty as is the other fel low's. Avoid the extreme in self confidence. The following incident is an illustration of the disastrous results that sometimes follow a failure to get the right perspective and an over-exercise of an enlarged ego:

A civil suit was being contested in a Circuit Court in a certain county in Missouri. The plaintiff was represented by an old and experienced lawyer who was well known to be successful in almost all of his cases and who was infected with the idea that he knew everything that there was to know. The defendant had employed a young and comparatively inexperienced lawyer, who not only had his whole mind concentrated on the facts of the case in dispute and every faculty alert from the time the case was called, but was painfully conscious of his inexperience and of the possibility of his making mistakes. During the preliminaries and while they were selecting the jury, the elder lawyer affected at every opportunity, an air of superiority and condescension toward the younger. The case progressed to the point where the plaintiff's attorney was to make his opening statement to the jury. This speech was made in the same easy, confident and superior manner that had characterized his attitude from the beginning of the trial. He finished his statement and seated himself with becoming dignity and a sense of importance that made the observer wonder how he happened to take a case in any other than the Supreme Court. What was his surprise and indignation when the young lawyer, who had been listening closely to his speech, arose and asked for a decision in favor of his client based upon the statements made by counsel for plaintiffs? And what was his humiliation and chagrin when the young lawyer clearly set out before judge and jury just what statements had been made and granting that they were all true, by these very statements plaintiff's counsel had conclusively shown that defendant could not be held liable on the claim. The decision was then and there rendered in favor of the defendant.

There is no doubt but that the elder lawyer was the better informed man, but he evidently failed to get the proper focus on all of the facts involved in the case. If he had been a little less confident he would have studied his facts more closely and would have been saved an humiliating experience. Do not understand us to deplore self confidence. We are warning against too much confidence, or the exaggerated ego.

A lesson may be learned by reference to the method or rule adopted by a judge when construing a statute. The first thing that is considered is the intention of the legislature at the time of passing the law; what condition or evil it was intended to correct or prevent. Also, in construing a contract, the intention of the parties is the guiding star in arriving at the meaning and application of an ambiguous phrase. Likewise, in construing a will, the intention of the testator is sought to explain away seemingly conflicting devices. If the judge makes a mistake as to the intention of the legislature or of the condition or evil aimed at, or, if he gets the wrong idea as to the intention of the parties to the contract or of the testator in his will, that judge will render an erroneous decision and declare a good law unconstitutional, give a rascal an advantage over an honest man under a contract or set aside a will that should be upheld. In these three cases, in all probability, irreparable injustice will be done, because of failure to get the proper focus at the start.

Think these things over, Mr. Critic, and do not be too hasty in offering criticisms. However, after you have considered all of the facts, and are reasonably sure that you have a clear conception of both question and answer and just can't possibly get them focused so that you can feel satisfied, write and tell us about it. We will test our focus once more and if we have made a mistake, we are more than willing—we are anxious to know it and to adjust it, for we are not too small to acknowledge it when we are in the wrong.

JOINING HANDS WITH AMERICAN BREEDER.

To the American Breeder:—Please send me five of your posters with my name and address. I wish to put them up at four postoffices in my township and one at my barn. I am standing an imported Percheron stallion at $10 to insure mare with foal and the trade is all going to the scrub owner who can afford to insure the colt to stand and suck. I am going to stand my horse the balance of the season at $10 and insure colt to live for 30 days. I think with the aid of the American Breeder I can convince them that it does not pay to patronize the scrub at any price. I use the capsule system and only make one service per day.—H. B. Smith, Douglass County, Mo.

WATERPROOF WHITEWASH.

Since publishing recently the formula for what is popularly known as "Government Whitewash," we have been handed the following (also put out by the government, through the Department of Agriculture), which is recommended for making "waterproof" whitewash for outside surfaces:

(1) Slake 1 bushel of quicklime in 12 gallons of hot water, (2) dissolve 2 pounds of common salt and 1 pound of sulphate of zinc in 2 gallons of boiling water; pour (2) into (1), then add 2 gallons of skim milk and mix thoroughly. Whitewash is spread lightly over the surface with a broad brush.

Answers to Questions About a New Extractor

Even if we did not make a business of doing so, the demands of our subscribers, apparently, would force us to investigate everything in the way of advise, apparatus or animals offered to the horse raising public—and we would have to investigate early. No sooner was the Natural Temperature Semen Extractor put on the market than we began to receive inquiries concerning it. There is nothing wrong with the principle of the instrument—in fact we believe it to be the most practical instrument ever devised for its uses, but there is only one final test, and we secured the names of enough of its users to represent the territory from which our inquiries had come and asked for their opinions. We are printing their replies, giving each man's address, so that any reader can investigate farther if he wishes. We submit the letters without comment, as follows:

April 29.—I think the Natural Temperature Extractor a great instrument. In my forty years' experience in the breeding business, I think this instrument beats them all. There has never been a mare served by a stallion at my barns only by a pure bred stallion. By so doing I think I have made the breeders of my community some money besides getting them interested in improving their stock. I am very proud of this.—Bud Davis, Noblesville, Ind.

April 30, 1914.—In regard to the Natural Temperature Extractor will say it is fine. I am traveling my horse this year and could not get along without it unless I went to a lot more bother. I did not like it for the first couple of times but now I think it is all O. K.—J. H. Moorman, Solomon, Kan.

April 28, 1914.—I have used my Natural Temperature Semen Extractor only twice and got enough semen each time for three capsules. Bred two jennets the first time, making a service on a mare, as I was using it after my jack.—Orlando Shotwell, Cushing, Okla.

April 28, 1914.—Have purchased the Natural Temperature Semen Extractor and am pleased with it. Think it the best on the market. Have no trouble whatever in getting the semen.—Burton Bros., Silver Point, Tenn.

April 28, 1914.—In regard to your inquiry about the Natural Temperature Semen Extractor. I like it much better than I do the old kind.—A. L. Putnam, Carson, Ia.

April 28, 1914.—I have received the Natural Temperature Semen Extractor and think it is all O. K.—C. E. Walters, Oakland, Nebr.

April 29, 1914.—We are pleased to advise that we have been using the Natural Temperature Semen Extractors for some time, and same is giving entire satisfaction.—C. J. Tucker, General Manager, Longview Stock Farm, Lees Summit, Mo.

April 25, 1914.—In regard to the Natural Temperature Extractor, I am doing a lot of breeding with it and don't have any trouble getting the semen. I serve the cleanest mare and a breeder. I never failed but once and that was on a young mare, very nervous. I use it most as an impregnator. I breed from three to seven at one service and they seem to be settling first rate, but it is not time yet to know what per cent. It is so simple anybody can use it. I think it is all right and would recommend it to any breeder, for you can get as many foals with your service and extract what you can for the others. I don't think you can get all the semen anyway.—J. B. Bennett, Ripley Okla.

April 25, 1914.—As to the inquiry about the Natural Temperature Semen Extractor, it is the finest thing I ever have seen. I have two large stallions and one fine jack. The rush came ten days ago and I resorted to the capsule system. Every morning at nine o'clock I breed from twelve to fourteen mares. I have no trouble getting the semen with this instrument.—G. F. Johnson, LeLoup, Kas.

April 27.—I have one of the Natural Temperature Semen Extractors and think it is the best they ever have gotten out yet. Any man who will handle it right can get semen all right.—V. E. Britt, Solomon, Kas.

April 27, 1914.—In regard to the Natural Temperature Semen Extractor, we have had good success. It is real easy to operate.—J. E. Johnson Wayne, Kas.

April 26, 1914.—I have used the Natural Temperature Semen Extractor this spring and although it is my first experience with one, it seems I have had the best of results. I have used it as an impregnator, and by using the microscope I haven't found it necessary as yet to breed a mare the second time. I believe it to be the best extractor on the market.—Theo. Nelson New Cambria, Kas.

April 27, 1914.—I have one Natural Temperature Semen Extractor and find it absolutely all O. K. During the rush season a horseman can not afford to do without one.—Fred Feagins, Kaw, Okla.

April 26, 1914.—In answer to your inquiry about the Natural Temperature Semen Extractor will say, with what experience I had with it, it is all right and can't be surpassed by any I have seen, as it is easy to use and to keep the right temperature. I don't think any one in the breeding business should be without one.—Theo. Pressly, Blue Springs, Mo.

April 26, 1914.—I have used the Natural Temperature Semen Extractor only a short time, but am satisfied it will do the work.—R. A. Chase, Fort Morgan, Colo.

April 26, 1914.—I have one of the Natural Temperature Semen Extractors and like it fine. I would not be without one.—E. W. Gill, Macon City Neb.

April 25, 1914.—The Natural Temperature Semen Extractor is the most convenient and practical instrument I have ever known anything about for the purpose of artificial impregnation I can heartily recommend its use to all stallion and jack owners who will follow the instructions which accompany it.—Dr. L. M. Clayton V. S., Liberal, Kas.

April 28, 1914.—The Extractor is all O. K. Have not had any trouble with it. I bred six mares yesterday. have used it four times and think it fine.—Paul C. Brown, Bradford, Ohio

April 27, 1914.—In regard to your inquiry about the Natural Temperature Semen Extractor, can say it is the handiest and simplest I ever used Hot water can always be had at an farm house to scald it out with an anyone can use it that can use the old one. I am using it every day. Non have come back yet wherever it was used. It is just fine these chilly days Just place it back in the one you have used and keep it as long as is necessary.—C. M. Tuttle, Owasa, Ia.

April 29, 1914.—In regard to your inquiry as to the Natural Temperature Impregnator, it does all it is guaranteed to do. I have never failed to get enough semen for all the mares present up to ten or twelve. The first time I used it, after reading the directions, extracted enough out of the uterus to impregnate twelve mares.—Ernest E. Thom, Eagle City, Okla.

April 30, 1914.—I hasten to say the Natural Temperature Semen Extractor I bought this spring is entirely satisfactory and does the work to perfection. I can recommend it to any one that follows capsule breeding.—E. W. Isenhart, Oakland, Mo.

BELGIAN STALLION SHOW; PAGES 1, 5, 7, 11, 15 and 19



No. 61—Height, 63½; Heart, 88; Bone, 11.



No. 8—Height, 67; Heart, 84; Bone, 12.



No. 47—Height, 69; Heart, 88; Bone, 10½.



No. 15—Height, 69; Heart, 83; Bone, 10½.



No. 49—Height, 66; Heart, 86; Bone, 11½.



No. 5—Height, 67; Heart, 94; Bone, 11½.



No. 28—Height, 70; Heart, 96; Bone, 11.



No. 42—Height 71; Heart, 88; Bone, 11.



No. 37—Height 65; Heart, 89; Bone, 11¼.



No. 21—Height, 75; Heart, 91; Bone, 12.



No. 22—Height, 65½; Heart, 91½; Bone, 11.



No. 11—Height, 70; Heart, 91; Bone, 11½.

"The Sins of the Father"

Editor's Note: The following article, printed recently in the Kansas City Star, was a communication to that paper from Helen Keller, perhaps the most remarkable blind person in the world. Deaf, dumb and blind from childhood, Miss Keller, by means of her exceptional mind and the aid of faithful teachers, has made successful study of many things besides the subject of this letter. While we are mentioning this article editorially we consider it too plain to need explanation and too vital to need excuse.

"The purpose of this article is to discuss one of the most common causes of blindness and its prevention. I am going to tell the readers of the Kansas City Star a few plain truths about something which is a source of real danger to the eyes of new-born babies.

"Intelligent workers for the sightless know that much blindness is unnecessary, preventable; but many people do not know the cause or the method of prevention. We hear a great deal these days about the 'social evil,' but I find that many people whom I talk with do not understand its connection with blindness and other afflictions. They are seized with a spasm of modesty when anyone tries to discuss this subject sensibly.

"Physicians and workers for the blind in many states have tried to have articles on the subject published, but they have invariably found it difficult. They have been informed that the matter they wished to print is 'indecent, shocking. Newspapers and even men who have the public welfare sincerely at heart beat about the bush and resort to all kinds of euphemistic phrases to describe a thing which lies at the root of many terrible evils in the world.

"Now, I maintain that nothing is indecent which helps to educate the people and arouse an intelligent interest and co-operation in a matter of public welfare. The truth, though unpleasant, is always more desirable than silence regarding an enemy that daily destroys the sight, the hearing, the minds, the morals of men. We may dodge the foe in print; but we have to meet it face to face in our streets and public institutions in the form of sightless eyes, stopped-up ears, crooked limbs and mindless bodies. * * * I shall, therefore, call a spade a spade in my discussion of Ophthalmia Neonatorum, which is the scientific name for the blindness of newborn. If people are shocked, it will do them no harm. The shock may awaken them to a sense of their responsibility, 'a consummation devoutly to be wished." Not until they do realize their individual and collective responsibility to the unborn can we hope to see the beginning of a fairer race. * * * What knowledge steals from us is not modesty, but a convention.

The Cause of Blindness.

"Ophthalmia Neonatorum is a venereal infection. Of the one hundred thousand blind people in this country at least 25 per cent have lost their sight through this infection. It is a specific germ contracted in cohabiting with prostitutes which the mother has received from contact with her husband previous to the birth of her child. Many men—the doctors say at least 75 per cent—are tainted with this infection. The two forms of it are gonorrhea and syphilis. The first of these, gonorrhea, has been regarded lightly by men. It is the harvest reaped from 'sowing wild oats'—'the folly and effervescence of youth.'

"We now know that this 'folly of youth' puts out the eyes of innocent babies. Not only is the infected father the cause of disaster to his child, he also in countless cases makes his wife a lifelong invalid. Physicians say that 80 per cent of the operations performed on the maternal organs are traceable to the same cause. The cruelest link in the chain of consequences is the innocent agency of the mother in the destruction of her baby's beautiful eyes and the unmerited suffering entailed upon her.

"It is a pity when things that bring such terrible consequences to the children of men may not be discussed in the public prints for fear of offending somebody's modesty. We shudder at the mere mention of the dread disease, but we keep on building hospitals and asylums for the blind, the deaf, the feeble-minded, and when we look upon these monuments to our shame, our sensibilities are not shocked.

"Publicity, education, knowledge, will do much to lessen the evils resulting from venereal infection. Most men do not sin wantonly. I firmly believe that the majority of mankind wish to be decent towards their offspring, that they earnestly desire to bring into the world physically and mentally sound children. * * * It has been known for more than twenty-five years that this disease is preventable. But this knowledge has been kept almost exclusively as the possession of physicians. No attempt has been made until recently to educate the people about its cause and the remedy to be applied. * * *

"A number of states and societies are directing their attention to the prevention of infantile blindness. They are distributing literature on the subject and supplying the silver nitrate solution free, with printed directions how to use it. Massachusetts is making a statewide effort to stamp out opthalmia neonatorum. The Sage Foundation is also doing splendid work, collecting valuable information about this disease, getting sanitary laws passed and seeing that the laws which already exist are enforced. There should be a law in every state heavily fining, or imprisoning physicians who cannot show that they have used silver nitrate in the eyes of every baby born under their care, and that they have reported all cases of ophthalmia neonatorum. This law has been in force in France for years.

* * *

"The only way to change all this is to educate the people. They must be taught about the things that vitally concern them. Let us banish from our schools dead histories, dead languages, dead philosophies. Let us learn about the things that are near to us—that concern our daily life; the processes of industry, the laws of social development, the growth of great cities, the causes of slums and social disease, sex hygiene and other truths in which lies the safety of our bodies and minds. Philanthropy is good—everything that ameliorates hard conditions helps; but the thing that really counts is Light.

"We can all help a little. The newspapers can help a great deal to make the world a healthier place for the wonderful new baby which is contemplated by every mother. The new race that has been visioned through the centuries must spring from the loins of sound parents, and these future parents are growing up now. Let us see to it that they receive the knowledge of the laws of life before in ignorance they break them.

"The best way to make sure that the sins of the fathers are not visited upon the children is to see to it that the fathers do not commit the sins.

THE USUAL RESULT.

To the American Breeder:—Please discontinue my ad in the American Breeder as I have sold the stallion as the result of the ad in your paper. Also please send statement of account. —C. Satorius, Cedar County, Nebr.

A Department For Women

LEADING VARIETIES IN NATIONAL EGG LAYING CONTEST.

In the third of the series of National Egg laying contests conducted by Missouri's State Poultry Experiment Station at Mountain Grove, the hens in the contest laid 19,630 eggs in March, or an average of nearly 20 eggs per hen. This makes a grand total of 49,369 eggs for the first four months of this contest, or an average of 47½ eggs per hen for that time for all hens, good, bad and indifferent. The pen of S. C. White Leghorns from England again broke the record for March or any single month's record for the past three contests. They laid 257 eggs in March, or an average of nearly 26 eggs per hen in thirty-one days, which was the highest record ever made by a single pen in a single month. The fewest eggs laid by any one of the ten hens in the pen in March was 24 eggs. They have nearly reached the 900-egg mark in four months.

The best individual records made thus far have been made by a White Wyandotte pullet from Pennsylvania and a Black Rhinelander pullet imported from Germany, each having laid 99 eggs in four months.

Seven hens in the contest have never laid an egg.

Superintendent Quisenberry writes that one hen from New Zealand, went totally blind in a few weeks after she arrived here. "I don't mean that she lost her eyes by roup or anything of that kind, but she simply lost her sight. Perhaps because of the starvation and suffering and effects of the hard trip enroute had something to do with becoming totally blind. We discovered that her eyesight was gone and it seemed that she would almost starve before we could teach her to eat and drink of her own accord. We fed and watered her for a time. But today she is laying and is in perfect health and has now learned the way about her pen so that she gets along about as well as a normal hen. She never goes on the roost, but she knows where to find her nest, feed and water. She is kept in a pen to herself. In moving about, she always turns to the right. She is in apparently good health, and we believe she will continue to lay. She is from pen six and her name is Helen Keller. As she is now acquainted with her pen, we believe we can keep her with as little trouble as any other hen.

The highest averages have been made by the following varieties: All Buff Orpingtons, 62 eggs per hen; all Buff Leghorns, 61½ eggs; all R. C. Reds, 60½ eggs; all Silver Wyandottes, 55 1-3 eggs; all S. C. Reds, 53 eggs; all Buff Plymouth Rocks, 53 eggs; all S. C. White Leghorns, 42½ eggs.

No variety has made a very low average. Several pens laid more eggs in March than in all previous three months combined. Nearly half the pens in the contest laid over 200 eggs each in March.

SHRUBBERY FOR HOME GROUNDS.

To the American Breeder:—Among the things to be kept in mind in planting ornamental, is to select shrubs that have beautiful foliage or colored fruits. An all-season effect is usually wanted. Alpine currant and willow are good on account of the bright colored bark.

Highbush cranberries, viburnum, lantana, rose rugosa, wahoo, sandthorn, Tartarian honeysuckle, snowberry and dogwood supply colored foliage and fruit.

Flowering currant, June berry, moc orange, Spirea Van Houtei, commo elder, barberry, lilac, caragana an dogwood are a few shrubs that blo som early.

Scattered planting over a law should never be tolerated. Keep th plants at the sides of the lot and bas of the building. They may be used t prevent crossing of the lawn, especia ly if planted at the corners.

The most important feature of th home grounds is a good lawn. A mi ture of forty pounds of pure Kentuck blue-grass, five pounds of redtop an three pounds of white clover per acr makes a good lawn.—Le Roy Cad University Farm, Minn.

THE THOUSAND-EGG HEN.

To the American Breeder: Hen which lay 1,000 eggs in a life time ar quite rare. Some hens live to be 1 to 20 years old, but very few of the lay many eggs after the third yea We have a White Plymouth Rock he at this experiment station which wi soon be approaching the 1,000-eg mark if she continues to lay. She i still in good health, and after moul ing began to lay again in Januar She laid 10 eggs in January, two i February and 11 in March, and is i her seventh year. Several years ag we had another White Plymouth Roc hen which won from two to four blu ribbons in good shows each year fro a pullet until she was eight years ol and also made a good egg record eac year. She laid an egg the day b fore her death when in her eight year. Dr. Sanborn, of Massachusett just reports a Buff Wyandotte he which laid 1,002 eggs in seven year I would much rather have hens lik those in my flock and much rathe breed from hens like these than t have a flock of hens whose race wa soon run, which are like a flash i the pan, and which make a good re ord for a few months or for a year an then because of lack of vitality, ar unable to stand the strain of heav production, break down, and die, c become useless and practically no productive.

The day a chick leaves the shell, is endowed with all the yolks, or ov or eggs, that it can ever lay, and se eral thousand more. Nearly ever chick's body possesses several tho sand of these tiny yolks and it is po sible to count as many as sever thousand in practically every pulle No amount of feeding, no system housing, no method of care and ma agement, however good it may be, wi add one more yolk to the number a ready provided by nature. The met od of breeding, feeding, housing, ar care, determines largely the numb of tiny yolks which any hen will b able to ripen or develop into full-size yolks and manufacture into the fi ished product.

Breeding has more influence ov this than any other one thing, ar don't ever get this idea that you fe a hen to feed yolks and eggs in her body. You feed her for the pu pose of enabling her to develop th yolks which nature and breeding ha already provided and made possibl

Man has taken the jungle fow which only laid a few eggs per yea but was of longer life than our d mestic fowl of today, and he has bre and improved the wild fowl until y now have hens laying 300 eggs in year and 1,000 eggs in a life time only a few years. Nature never i tended that any hen lay 200 or 3 eggs in a year, and naturally, by i creasing production to many tim what the wild fowl laid annually, ma has shortened the life and in mo cases, has decreased the vitality fro that of the original fowl.—T. I Quisenberry, Superintendent Missou Poultry Experiment Station.

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SPECIAL ANNOUNCEMENT. We will rward, on receipt of 5c the Spring mber of the Home Dressmaker, il-strating the latest embroidery de-gns, as well as hundreds of designs garments for Misses, Women and ildren, and containing two pages of nts on Home Dressmaking.

9880. Ladies' Skirt.—Cut in 5 zes: 22, 24, 26, 28 and 30 inches aist measure. It requires 2⅝ yards 50-inch material for the 24-inch size, hich measures about 1⅝ yards at e foot. Price 10c.

9883. Ladies Kimono Waist.—Cut 6 sizes: 32, 34, 36, 38, 40 and 42 ches bust measure. It requires 2¾ rds of 44-inch material for a 36-inch ze. Price 10c.

9519. Ladies' Combination Corset over and Drawers. Cut in 6 sizes: , 36, 38, 40, 42 and 44 inches bust easure. It requires 4¼ yards of 36-ch material for the 36-inch size. rice 10c.

9747. Ladies' Apron.—Cut in 3 zes: Small, medium and large. It quires 4⅞ yards of 27-inch material r the medium size. Price 10c.

9904. Girls' Dress with Over Blouse. Cut in 4 sizes: 8, 10, 12 and 14 ears. It requires 3⅞ yards of 40-ch material for waist and skirt; er blouse requires 1½ yards in the -year size. Price 10c.

9881. Girls' One Piece Dress.—Cut 5 sizes: 4, 6, 8, 10 and 12 years. It requires 3½ yards of 36-inch material for an 8-year size. Price 10c.

9889. Ladies' Dress, with or without Chemisette. Cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6¼ yards of 36-inch material for a medium size. It measures at the foot in a medium size, when finished, about 1¾ yards. Price 10c.

9901. Dress for Misses and Small Women.—Cut in 4 sizes: 14, 16, 17 and 18 years. It requires 2¾ yards of contrasting material for skirt, and waist trimmings, and 4⅛ yards of plain material 24 inches wide for a 14-year size. The skirt measure 1 1-3 yards at the foot in a 14-year size. Price 10c.



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Address all orders to Pattern Department, American Breeder, 225 West Twelfth Street, Kansas City, Mo.

CORN IN WORKMULES' RATIONS.

Corn has been shown by tests at the Missouri and Kentucky Experiment Stations, to be a good grain for work mules, fed in connection with the customary roughage and under recent price conditions.

The Missouri Station, in reporting the tests made, refers to the "prevalent opinion that oats is a better feed than corn for horses and mules. Various arguments," it states, "have been presented as proof of this view, yet the fact remains that corn constitutes a great portion of the feed given to mature work animals. The protein content of oats and the mineral content together with the physical condition of the oats as a feed have all been cited as reasons for the efficiency of oats. It has been suggested that a mixture of oats and corn for mature work mules would be a more satisfactory ration than either oats or corn alone. It was the plan of this experiment, however, to feed two lots of mules, the grain ration received by one lot to be oats alone, while corn alone should be given to the other. The roughness consisted of mixed clover and timothy hay.

"The experiments were made with four mules and extended over two years. Although the number of animals used was not large, the lots were so reversed as to tend to eliminate any errors due to individuality of animals.

"Mules receiving corn and hay maintained good health and appetites, as did the mules receiving the oats and hay.

"The mules which received corn and mixed hay maintained their weight slightly better than did the mules fed oats and mixed hay.

"The mules receiving corn and hay endured hard work in hot weather as well as did those receiving oats and hay.

"No difference in spirit could be detected in the different lots of mules.

"Mature mules required 3 per cent more grain and 1.4 per cent more hay to maintain approximately live weight when fed oats and mixed hay than when fed corn and mixed hay.

"The mules receiving corn and mixed hay did 6 per cent more work when the number of hours is used as a basis than did the mules which received oats and hay.

"No abnormal effect could be noticed in any of the mules receiving either ration.

"The mature mules in the two-year test were maintained 28 per cent more economically on a ration of corn and mixed timothy and clover hay than on one consisting of oats and mixed clover and timothy hay, when corn is valued at 50 cents per bushel, oats at 40 cents per bushel, and hay at $10 per ton."

In similar experiments at the Kentucky station, comparing ear corn with cracked corn, bran, and oil meal, it was observed that "the health and spirit of the mules fed the ear corn ration were not noticeably different from those fed the grain mixture. Both rations served to maintain the weight of the mules. * * * The skin and hair of the mules fed on ear corn were not as soft and glossy as of those fed the mixed grain. This desirable gloss of the coat of hair was due probably to the oil meal. * * * Because of the high price of bran and oil meal, the ear corn ration was the cheaper. The ear corn ration cost 30.3 cents per day, the grain mixture ration 31.8 cents."

LAWN-PLANTING POINTERS.

Do not overplant the yard.

Have a reason for every plant set.

Plant in groups—never in straight lines.

Corners and abrupt angles may often be rounded by shrubs.

Peonies, iris, phlox and giant daisy are among the best perennials to use.

It is often an advantage to screen the rear of the lot by a hedge or group of shrubs.

Just enough vine should be used on a porch to shade it and partly screen it from public view.

Masses of one color are better than too great a mixture. A few well-chosen plants are best.

Shrubs at the base of a building relieve the set, formal character and seem to "tie" it to the ground.

Large trees or plants should always be set in the background. Gradations from these may be made to the front.

Wild grape, Virginia creeper, bittersweet, or the climbing rose are excellent for the porch.—Le Roy Cady, University of Minnesota.

KODAK



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THE PRINCIPAL TROUBLE.

To the American Breeder:—I see in the April 20th issue of your paper a letter from an Indiana breeder in regard to the "stand and suck" proposition. Now I think the stand and such idea is all right, as I have always stood my horses that way, and as I keep nothing but pure bred stallions, I have had all kinds of horses and terms to contend with. I like what you say about men keeping scrubs and working them and breeding any old way. We can't adopt the cash business for farmers will breed to scrubs first. I know farmers that go to farmers' institutes and howl long and loud on scientific farming, and read papers on improving your stock, and then breed to a grade horse for six or eight dollars before they will breed to a full blood for $12 or $15. No, it is not the stand and suck problem that hurts but it is ignorance on the part of the mare owners. Protect your horse by not breeding every old skin that comes along just to get a big lot of mares on your books. See that your mares are clean and in breeding condition before breeding. Keep your horse in just good flesh; not too fat or too thin. Talk to the mare owner and get him interested about protecting his mares, and the per cent of dead colts will be small. I would write at length on this line but will not at present. I enclose you a copy of our new law. I think it fills the bill all O. K.—O. L. ROSS, Delaware County, Ind.

Questions and Answers

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

Sign Your Name and Address to all Questions.

978—A YOUNG JACK—I have a jack 20 months old. His measurements are 82 inches from ears to crupper; 57 inches high; 60 inches girth; 16 inch forearm; 8½ inch leg; weight 650 pounds. What kind of a jack will he make. He runs in pasture with fillies and work horses. He aggravates the fillies when in heat a great deal by teasing and riding, but he doesn't get ready to serve them. Is it best to still let him run with them or should I keep him up?—Kansas Subscriber.

REPLY.—Your jack should make a good average jack and is especially good in girth and bone. You had better separate this jack from the other horses in the pasture. It might be well for him to see the fillies; he is getting too rough to run with them now; he will soon be old enough to make a service; should he make a service loose he might want to follow that practice.

979—RECOGNIZED JACK RECORD ASSOCIATIONS—I have just read an article signed by J. W. Jones, in which he states that the Jack Stock Stud Book of Tennessee is recognized by the United States Government. I have been informed that the United States Government (or its Bureau of Animal Industry) does not recognize any American record associations. Will you please give us the truth concerning this question.—Missouri Subscriber.

REPLY.—On January 1, 1911, the United States Government withdrew its recognition from all record associations in the United States. Government bulletins have been issued to this effect. We also have the signed letter of the Bureau of Animal Industry stating this fact. If you do not believe that we are telling you the truth write to the Bureau of Animal Industry, Washington, D. C., yourself. They are the ones whose action constitutes the facts in this case. The paper printing the article referred to knows that the statement signed by J. W. Jones was a deception and contrary to the facts in the case. The Standard Jack and Jennet Registry of America, an honestly conducted stud book, with headquarters at Kansas City, is making such a wonderful growth that it may seem necessary to those who formerly enjoyed a monopoly of jack registration business to make misleading statements. This may especially be true at this particular time due to a hope that they can keep breeders from getting stock registered in the Standard Record before June 1st, when the foundation stock requirements will be changed. The article referred to is about the rawest deal we have seen pulled off in a long time, more especially as it is the work of parties who are supposed to have some responsibility. However, conditions sometimes arise when a man will "grab" at anything. If Mr. Jones has made this one misleading statement, will he make others? In this case we are perfectly willing to let our readers choose between J. W. Jones and the Bureau of Animal Industry as to whom they will believe.

980—USING THE MICROSCOPE—In using my microscope sometimes I can get the movement fine and see the spermatozoa perfectly, and then in a few minutes I can get moving objects but without the tail to them. I want to know if there should be moving objects in the semen if it was because I did not get it adjusted just right to see them perfectly? It is not the fault of the lens in any way as I can see perfect spermatozoa at times and from the same semen can only get those tailless moving objects.—North Dakota Subscriber.

REPLY.—The fluid dries on the slide in a short time. You should make your inspection while the fluid is fresh. After you adjust it the best you can by operating the side wheel, the adjustment behind should then be used. This operates slower than the one on the side. You can get a more perfect view with the rear adjustment.

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981 — REGISTERY CERTIFICATE LOST—A sold B a stallion; B, not being able to pay for him, returned the horse but kept the pedigree and will not give it up; says he lost it. Is there a way to get it, or a duplicate of it?—Nebraska Subscriber.

REPLY.—Most of the record associations require an affidavit that the certificate has been lost and in this case a new certificate can usually be had by paying a fee, which is usually about the same price as the original application. If the one to whom you sold this horse refuses to give you the certificate, or make such an affidavit, the courts will settle your adjustment. The register certificate was probably a part of the consideration and should accompany the stallion in this case.

982—DIAGNOSING PREGNANCY—I have been breeding horses nearly 20 years, mostly trotters. I now have a case that is different from any I have had before. In the spring of 1912 I bought a big, fine, healthy, six year old trotting mare. I bred her about the 13th of May to my trotting horse, and in a few days she went out of heat, but in 18 days was in heat again and bred. I bred her every 18 to 21 days after that up to and including October 4th, when she was bred the last time that season. I tried her the 14th day after that, also the 21st and also once a week after for ten weeks. She showed no signs of being in heat until the following May, 1913, when she came in heat and would have taken the horse. As she had been tried regularly, though, the previous fall, and too, was now showing some indications of being in foal, I did not breed her. During the remainder of the summer (1913) she was in heat continuously and September 17, 1913, foaled a colt. September 26th (the 9th day) she was bred and tried the 18th day, the 27th day and once a week for six weeks after foaling and I considered her in foal, as she showed no indications to the contrary. About the last week in November I observed she was in heat and tried her with the stallion and she seemed ready to be bred. I examined her and went in through the vagina and found the os, or mouth of womb, apparently closed and seemingly contracted, and much smaller than is usually found in mares. I went no farther and did not open her, but decided that she was in foal. I allowed her colt to remain with her until it was about five months and a half old (about February 15th) when I weaned it. The mare and colt were well fed during this time. Since the first of May the mare has been worked on the farm and well cared for. She is continuously in heat and I think has been for several months. She is healthy and rugged, though not fat, not really in as good flesh as she should be, considering the feed and care she gets. Is shedding rather slowly; is active and in fine spirits. She does not look like she was in foal. I have not bred her since the service of last fall for fear of causing an abortion, in the event that she was in foal. I have talked with two or three veterinarians about her and they do not know any more about the case than I do. This mare is rather long legged, light barreled and the kind that does not "helly down" until pretty heavy in foal. The stallion that I bred her to is a very sure foal getter. This mare apparently is in perfect health and internally seems all right. The neck of the womb, when examined last fall, and during the season of 1912, seemed normal, etc. No indications of any displacement, or crooked, contracted os. During the season of 1912 I bred 10 mares of my own (and many outside mares) to my horse and every mare had a living colt. This mare was one of them and the only one who was difficult to get in foal. Eight of them were only bred once apiece. As you observe the stallion was not at fault. Any information you can give me will be greatly appreciated.—Illinois Subscriber.

REPLY.—A rectal examination will reveal the fact whether she is pregnant or not. Every breeder should be able to do this, but it is not advisable for the average man to attempt it unless he has had some special training along that line; neither could he tell what to look for without some enlightment. If the mare is not pregnant she should be examined from a breeding standpoint. You have told us much about the mare but you have given us very little information about the generative organs. You could make an examination with a speculum on this mare which might assist you in diagnosing pregnancy. At this stage the cervix should be very short and round which would look like the half of a hulled walnut. There are many mares re-bred while pregnant. There is a vast difference in the way mares act. One should be very careful about breaking the mucous plug. Inquiry should be made as to when a mare was last bred and the possibility of her being in foal.
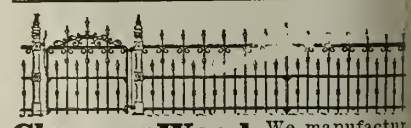
983—ABORTION FROM LACK OF FEED—Many mares over this country aborted their colts about the first of the year, due to lack of feed on account of snow. Many horses were compelled to rustle their living and their diet consisted of Russian thistles. These cause a disturbance of the digestive tract and abortion follows. An examination of the generative tract shows in the majority of them nothing particularly amiss. Please give an outline of treatment that should be given. Will a saline injection be sufficient? None that I have tested so far show an acid condition. Would it not be best to wait until these mares were in good condition from green grass instead of doctoring, in hopes that nature would do its own repairing?—Colorado Subscriber.

REPLY.—Most of these mares should return to their natural condition by giving them their freedom with plenty of good grass. There will be some that will need treatment. Those which fail to conceive, that slightly react to the acid test, might be greatly improved by using the saline solution at 115 degrees.

984 — CHANGING FEED FOR BREEDING STOCK.—Will you please tell me if a sudden change in a jack's feed from oats, ear corn and alfalfa hay to alfalfa meal (as some call it) or alfalfa, corn, oats and molasses









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ground up together, during the breeding season will injure his breeding or keep him from being fertile, when he relishes his feed and performs well as he always did?—Arkansas Subscriber.

REPLY.—Any sudden change that will interfere with the digestive organs is injurious to breeding. All changes should be made gradually so as not to interfere with the digestive organs. The bowels will be your guide. Your jack would have given you better results had you started with a particular line of feed several

(Continued on page 12.)

BELGIAN STALLION SHOW; PAGES 1, 5, 7, 11, 15 and 19



No. 24—Height, 74; Heart, 97½; Bone, 13.



No. 27—Height, 65; Heart, 89; Bone, 9.



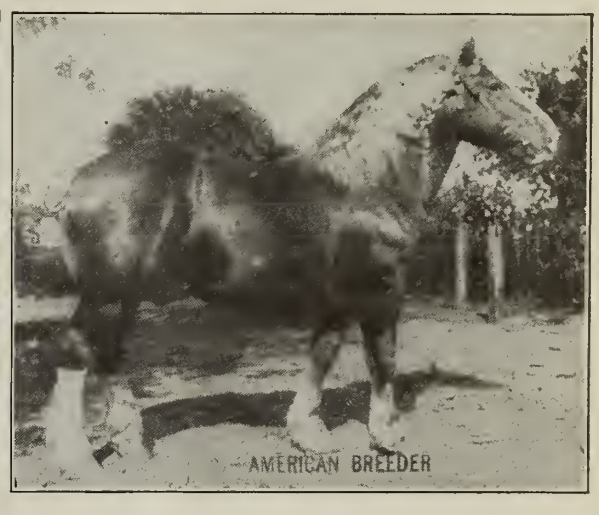
No. 31—Height, 68; Heart, 95; Bone, 11½.



No. 29—Height, 71; Heart, 92; Bone, 11½.



No. 10—Height, 73; Heart, 93; Bone, 10½.



No. 3—Height, 66; Heart, 96; Bone, 12.



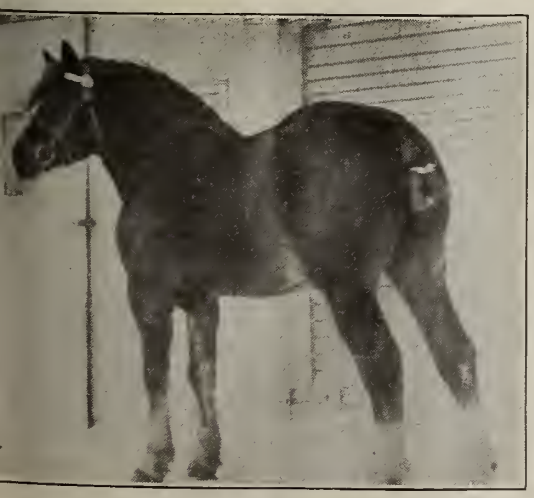
No. 58—Height, 65; Heart, 93; Bone, 10½.



No. 36—Height, 67; Heart, 91; Bone, 11½.



No. 62—Height, 67; Heart, 84; Bone, 11.



No. 33—Height, 68; Heart, 81; Bone, 9½.



No. 60—Height, 68; Heart, 87; Bone, 11½.



No. 64—Height, 67; Heart, 95; Bone, 11.

QUESTIONS AND ANSWERS.

(Continued from page 10.)

weeks before the breeding season, and continued until the season was closed.

There are other things connected with the fertility of animals which do not always show by the digestive organs and the miscroscope could be of much service to you at the present time, if in doubt. If your mares are settled satisfactorily you should not worry much. But there is a great difference in mares. Occasionally a breeder will have a large number of fertile mares all in a bunch, or he may have a good number of doubtful ones. A better understanding of fertility in mares would be of much assistance to you at the present time.

985—LOW PER CENT OF JENNETS—I have 14 registered jennets in good condition. My jack serves the jennets from three to five times each year and foals about one-third each year. I use the 18th day and use natural service, also impregnator without capsule. I am careful about temperature of the water. Sometimes allow jack to cover naturally, then take impregnator and place semen in uterus immediately. This jack foals 60 to 70 per cent of mares each year. I don't fear the jack's condition. I have changed water and pasture with these jennets without gain. I will highly appreciate any help.—Oklahoma Subscriber.

REPLY.—Jennets are more susceptible to infection than mares. They also harbor the barren mare germ to a greater extent than mares. Study the article in the April 5th issue on page 3, entitled "Treating Non-producing mares." When you have bred a jennet immediately remove her to a pasture with cattle, or mares, or jennets which are in foal. Do not allow her to associate with other jennets not in foal or be within hearing of jacks. Arrange your pasture so that not more than four jennets will run together, for the best results.

986—UTERINE DUCT—Is it possible for the fallopian tubes in a mare to become inflamed and stopped up until it is impossible for the ova to find its way into the uterus, so that even though a mare is healthy in every way, and her ovaries are all right, she will not fertilize?—Montana Subscriber.

REPLY.—It is possible that one or both of the uterine ducts (Fallopian tubes) may be closed. We are of the opinion that it is not often that both of them are obstructed. There are many other conditions which are more liable to be unsatisfactory from a producing standpoint.

987—SEMEN TEMPERATURE—Please tell me if the thermos bottle is any good to use with the capsule breeding.—North Dakota Subscriber.

REPLY.—Some very good results have been reported from the use of different kinds of retainers. We do not advise any of them. The mare is the best means of keeping the semen at the right temperature. We would not advise anyone to carry on any experiments the first year. Those who have established the capsule system can experiment a little.

988—TREATING A MARE—I have a Belgian mare coming ten years old that was not in foal last year. She was bred in December and just returned in heat about April 20. I examined her in December and the cervix seemed to be normal. Some who have looked the mare over say she has never had a foal, but the parties that I got her of say that she has had a number of foals. The urine at times runs down her legs and forms small lumps of a yellowish substance. Please give me treatment for her.—Idaho Subscriber.

REPLY.—Use the iodine treatment, followed with the saline solution in three weeks. If in a suitable condition at that time, breed her.

989—ABORTION—I have two mares that have foaled about two months before time. They were fed alfalfa hay and whole oats and some chop barley. All of the above feeds were clean and dry. They were doing ordinary farm work and we watered from a well of clear, cool water. The mares are under six years of age.—Idaho Subscriber.

REPLY.—We could not tell you what caused these mares to abort without more information. There are many causes that might be named. You should watch these mares closely at this same period during the next pregnancy, as there may be a tendency to abort again.

990—A DISEASED MARE—I have a splendid large jennet about 12 years old which produced a jennet colt in June, 1912. Have bred her repeatedly since but she does not settle. She seems to be fairly regular in her heat periods at which time there is a heavy discharge of watery substance, slightly milky in color, otherwise she is in good health as far as I am able to tell. Is there any chance of redeeming her as a breeder? Her cervix is slightly loose and open.—West Virginia Subscriber.

REPLY.—Use the saline solution once a week for three weeks and if in a good condition at that time, breed her with a capsule.

991—CURING NAVEL DISEASE—Will you please tell me whether a box of your navel powder will help a case that has already developed?—Missouri Subscriber.

REPLY.—The navel powder sold at this office is not represented as a curative agent; it is a preventive only. You should have your veterinarian write to Dr. A. T. Kinsley, 1336 East 15th St., Kansas City, Mo., for bacterins. This will give you the best and quickest treatment we know of, but the principle thing in navel ill is to prevent it. After a case is well established do not be disappointed if the colt dies with any treatment.

992—POOR SERVING STALLION—I have a fine three-year-old Belgian draft stallion that I have been having considerable trouble with about breeding. Will you kindly give me all the advice that you think will help overcome the trouble? This stallion is not fat but just in good breeding condition and feels so good he can't stand still a minute. He tries a mare good. I bred about 15 mares last year and had the same trouble, but not as bad as this year. He proved a sure foal getter last year. Now when I let him to the mare he mounts all right but it seems he won't get close enough to stay entered after I get him entered. He is easy to enter and will go about half way in and then work out. I have to let him on from three to 15 times before he will breed the mare and sometimes he comes off a little sooner than I like. I have had horses for 15 years but I have never had one act like he does, and I can't account for it. Will you please do the best you can to tell me the cause of his actions, and the best way, if you know any, to get him out of this, as he is a fine registered horse and an extra fine individual—Iowa Subscriber.

REPLY.—Take the grain away from this stallion for about ten hours before you expect to make a service so that he will not get sick in case of too much exertion. Get a good, gentle mare that is in heat; take him up close to the mare and slip the bridle off and watch the performance. It may be that he has a very tender mouth. If he does not make a successful service on this mare after a few attempts give him the hot water treatment, which consists of putting the penis in water as hot as he can stand it, by beginning with body temperature and gradually increase by adding a little more water. Lead a mare out where he can see her so that he will produce an erection. Do this two or three times a day for a couple of days. During this time put a day and night watch on him to see if he is masturbating. If this is not the difficulty sprinkle some hay under the horse before you serve in order to get him to urinate good, then bring out a mare that is in good heat and let him make service before the erection is too severe. Let the mare take a few steps during this service so as to put all the muscles into action at once. If his mouth is slightly tender, use a halter or some means that he is not afraid of, be very gentle with him.

993—IN-BREEDING—I have a four-year-old grade German Coach filly which I would like to breed to a coach or a trotting stallion. She is a fine animal but there isn't a stallion of that kind around here, except her father. Would it be all right to breed her back to him? Or what would you advise me to do?—North Dakota Subscriber.

REPLY.—Some very good results have been brought about by in-breeding but the defects will be intensified

(Continued on page 16.)

Live Stock, Hay and Grain Market Review

General indications that horses and mules would be needed in increased numbers for army purposes added new life to the market in the past week. However, the army quartermaster's department has not been appraised of any increased orders but made the statement that whether war or peace existed in Mexico the army would have to increase its purchases in the next few months. About 200 horses and 100 mules were delivered on former contracts to army inspectors in St. Louis and Kansas City, and these two points will receive future orders. The army horse is in the 1,000 to 1,100 pound class, of hardy color, rangy, well proportioned, sound in every particular, and costs about $135 to $175 a head. In mules all kinds are used from the small pack animal to the heaviest big-boned, long eared, hybred available. Most of them are of the medium weights, blacks, browns and a few sorrels. Prices range from $115 up. Army inspection and testing of animals is extremely rigid. Minute measurements, lung, wind, strength and sight tests are made, and ages are 4 to 8 years old. Men who cater to the army trade say that in filling any order army officers inspect two horses to one accepted. This would mean that in an order for 200 head the contracting party would have to have about 400 head available. This makes buying on army contract rather risky business, and requires a large price margin on which to operate.

Other than the war feature the general trade has shown no material change. Receipts have been more liberal and quality has been fairly good. The east still continues in the competition and there has been some demand from the south, though the latter has been more or less irregular. Large cities of the country have been buying chunks and drafters. Many horses that had weight but lacked quality fared well in this demand, and at the same time some choice drafters were taken along with the plainer kinds. This outlet has been caused by city spring hauling, principally by ice companies. In farm lines requirements are small, but about the usual proportions for this season of the year. Regular country buyers say that a close clean-up has been made of surplus horses. Early in the year feed barn supplies were shipped out and farmers sold off all the surplus well broken animals. This leaves the supply now close to actual requirements, and largely of younger stock.

General conditions throughout the country are bright, both from crop and industrial prospects. Colorado has its mine strike but elsewhere in the country men who were idle through the winter are finding employment.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Drafters, 1700-pound extra quality	$250@300
Drafters, good to choice	200@245
Drafters, fair to good	150@185
Chunks, good	150@180
Chunks, fair	95@150
Southerners, good to choice	130@150
Southerners	90@125
Driving horses	65 up
Mules—	
13½ to 14½ hands	100@135
14½ to 15½ hands	130@165
15½ to 16 hands	160@210
16½ or better	200@265

Soft Spots In Cattle.

The cattle market has shown considerable unevenness owing to increased supplies at irregular periods and an improvement in general demand for beef. In periods of several days each the market would improve and then a few days of extreme dullness would follow. On Wednesday Chicago received 19,000 cattle, instead of 15,000 as expected and the market there was lower, spreading weakness elsewhere. However, receipts elsewhere were moderate enough to resist the decline. The usual spring soft spots are showing in the market, but the supply is not large enough for any period of prolonged dullness. As long as Chicago gets periodic heavy runs buyers will continue to hold back for such supplies. In the West the movement is rather even but below normal. The West is supplying relatively more fat cattle for river markets than the corn belt, and that condition will be continued up to the beginning of the hot weather. The movement of Southern cattle from grass is still small and below normal for this season, notwithstanding that grass is good. A recent slump in Fort Worth caused a temporary suspension of shipping. This was opportune as the cattle will be held for better conditions.

Prime steers are bringing $8.90 to $9.25, Chicago top $9.40. Few, however, are in that class, and the bulk of the short fed grades are selling at $8.15 to $8.60. Some Colorado steers brought $8.65, and Panhandle steers sold up to $8.60. The extreme range is from $6.50 up. Notwithstanding recent weakness in the market killers have been buying freely and their orders in the past two weeks have exceeded those of early April. Beef is in better demand and wholesale prices are up 1 to 2 cents a pound. Early grassers from the South will supply a weakening influence for the medium and plain half fat cattle, and killers are expecting both classes to go lower in the next few weeks. Prime grades are expected to continue high.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.00@9.2
Good to choice steers	8.30@8.9
Fair to good steers	7.90@8.2
Common to fair steers	6.75@7.8
Meal fed, choice	8.00@8.6
Meal fed, common to fair	7.35@8.0

Butcher Cattle Hold Firm.

Trade in butcher cattle remains active. Receipts are moderate. Baby beeves, heifers and steers and heifers mixed, showing grain fat, are in special favor and will continue so for some time. Cows and heifers that were held on wheat fields up to a few weeks ago, and then warmed up on grain, are lower and selling rather slowly. The few cows and heifers included in the movement of grassers from the South were not sufficient to test values fairly. Prime steers and heifers mixed sold up to $9.15 and heifers $9. Those that brought $8.2 and better had to carry considerable grain fat. Cows sold at $4.25 to $7.7 few above $7.25. Prices for veal calves were off 75 cents to $1 a hundred pounds and bulls were 15 to 2 cents lower.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$7.00@7.7
Good to choice	6.40@7.0
Fair to good	5.75@6.5
Common to fair	4.90@5.7
Canners	4.25@4.8
Heifers—	
Choice	8.50@9.7
Good to choice	8.00@8.4
Plain to fair	7.00@7.5
Common	5.85@6.7
Veal calves	6.00@9.
Bulls	5.25@7.2

Big Demand for Stockers.

Demand for stockers and feeders is sufficient to care for all the offerings. In the past two weeks prices were too high and there was a temporary let up in the demand but as soon as prices were reduced trade was as active as ever. The fact that cattle in all classes are needed on farms and ranges and high prices supply the only objections to buying. Stock calves sold up to $8.50, stockers $8.25 and feeders $8.20. Few brought less than $7. Practically no stock cows or heifers were offered.

The following quotations are f

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he various grades of stock and feed-ng cattle:

elected feeders	$ 7.90@ 8.30
ood to choice feeders	7.50@ 7.95
air to good feeders	7.15@ 7.45
lain to fair feeders	6.85@ 7.10
elected stockers	7.90@ 8.25
ood to choice stockers	7.25@ 7.85
lain to fair stockers	6.50@ 7.20
tock calves	7.00@ 8.50
tock cows	5.75@ 6.50
tock heifers	6.00@ 7.50
ilch cows	60.00@110.00

Big Movement in Hog Prices.

April 30 hog prices were the low-st since January 29, and 40 to 45 ents under the high time of the onth. The last 30 cents of the drop as made in the past four days, with eceipts of hogs small. The market as been under pressure from pack-rs owing to a slump in prices of rovisions. There has been no spec-lative demand for pork or ribs and ackers have found it extremely diffi-ult to finance the hog market with oney borrowed on the basis of rices for provisions. Packers have nnounced that they expect larger upplies of hogs in May than were ffered in June, but according to ountry reports there is no such runs idicated. Today the market showed oderate strength and the depression prices seems at an end tempo-arily. It will take a vigorous rally provisions to put the hog market n a higher basis. Thus far this year he five Western markets received 00,000 fewer hogs than in the same eriod last year, and the April re-eipts in Kansas City and Chicago ere 23 and 19 per cent short.

The following table shows prices or hogs in Kansas City in the past wo weeks:

		Preceding Week
Monday	$8.45@8.70	$8.40@8.62½
Tuesday	8.30@8.55	8.30@8.60
Wednesday	8.20@8.45	8.20@8.42½
Thursday	8.10@8.35	8.30@8.57½
Friday	8.10@8.35	8.40@8.65
Saturday		8.40@8.62½

The following quotations are for ogs:

Choice, 250@300 lbs	$8.50@8.60
Choice, 200@245 lbs	8.45@8.60
Medium weight	8.40@8.60
Light weight	8.35@8.55
Common to fair	7.00@8.25
Stags	7.00@8.50
Boars	4.75@7.00
Bulk of sales	8.40@8.55

Sheep Prices Steady to Lower.

Fed sheep are holding at firm prices and grass fat sheep are 15 to 25 cents lower. The former class is diminishing and the latter class in-creasing. Southwest goats are of-fered in liberal supply and will con-tinue for the next two months. Wool lambs are quoted at $7.75 to $8.10, clipped lambs $6.50 to $7, clipped Texas sheep $5 to $6, and goats $3.25 to $3.85. Some Arizona spring lambs sold at $7.75 to $8.

Hay Prices Higher.

Prairie, alfalfa and timothy hay were quoted up 50 cents to $1.50 a ton to the highest level this year. The advance did not increase the movement to any extent and nearly all of last year's surplus crop has been marketed. According to country reports the first cutting of alfalfa will be available for use in a few weeks. Clover hay remained steady.

Quotations are as follows: Alfalfa fancy, $17.50@18.50; choice $17.50@18; No. 1, $16.50@17; standard, $15@16; No. 2, $13@14.50; No. 3, $9.50@12.50; prairie choice, $17.50@18; No. 1, $15.50@17; No. 2, $13@15; No. 3, $9.50@12.50; timothy choice, $18@18.50; No. 1, $17@17.50; No. 2, $15@16.50; No. 3, $13@14.50; clover mixed, choice, $16.50@17; No. 1, $15.50@16; clover, choice, $14.50@15; No. 1, $13.50@14; straw, $5.50@6; packing hay, $5@6.

Rains Benefit Wheat Prospects.

This past week copious rains fell in practically the entire winter wheat area, especially heavy in Northern and Western Kansas where they were most needed. Speculative prices fell to a new low level for the season, the Kansas City price going below 80 cents. Cash wheat prices were not affected as there was material decrease in the visible supply showing and flour trade was good. Corn and oats were fractionally lower. Practically all feeds were down a few cents though still in active demand.

The following quotations are for cash grain in car load lots on the Kansas City market:

Wheat—		
No. 2 hard	85	@89½
No. 3 hard	84	@88½
No. 2 red	88	@89
No. 3 red	87	@88
Corn—		
No. 2 white	70½	@71½
No. 3 white	69	@70½
No. 2 mixed	70	@71
No. 3 mixed	67	@69
Oats—		
No. 2 white	.39	@ .39½
No. 2 mixed	.28	@ .38½
Rye	.60	@ .61
Chop	1.33 a cwt.	
Bran	1.16	@1.17
Barley	.52	@ .54
Shorts	1.19	@1.23

Hog Breeding; Lesson VII

Editor's Note:—So many of our subscribers have written us of their interest in hogs, that we are continuing, in the following article, a series of "lessons" on hog raising. This material is based on the knowledge of practical men and the best trained observation and experimental data. The reader will, of course, need to give all the additional study he can to the subject, but these lessons should serve well as a general guide and a foundation on which to build.

Castrating and Weaning the Pig.

A prominent writer upon hog topics makes the statement that "a hog is half made when past the weaning period without a stunt or kink in its growth." There is no question but that there is much truth in the above statement. If the pig crop can be properly nourished and grown the first two months of its life without thumps, scours, or like troubles, and changed from an animal dependent upon its mother's milk to one able to obtain its nourishment direct from the feeding-stuffs, much will have been done toward making pork production return its maximum profit.

Castrating and weaning may at first thought seem to be of minor importance and they are perhaps small factors, but is it not by paying proper attention to the small things that the so-called "good luck" with pigs is obtained? Most men do the "big things," but the man who is most successful is the one who not only does this but also sees to it that the little details are properly looked after.

All male hogs not intended for market purposes should, of course, be castrated. This operation may be done at most any time in the hog's life without much care being taken and still not result in loss of life. Because of this fact, proper care is often neglected. The best time to castrate is before the animal is weaned since at this time the shock upon the animal is considerably lessened and since the pig is still suckling its mother, it is being nourished in the best manner possible. In performing this operation, cleanliness is the most important factor. Clean hands, clean knife and clean quarters are essential. It will pay to have at hand a good antiseptic solution of some sort. A three to five per cent solution of any of the coal tar dips or carbolic acid are cheap and efficient. On a dollar and cents basis, they will pay. A supply of pine tar is also of value at this time. After the hands and knife are thoroughly washed in the antiseptic solution, the place where the incision is to be made should also be thoroughly cleansed. In making the incision, be sure to make the lower end of the cut low enough that the wound will drain well when the hog is on his feet. This is important. After removing the testicle, some of the antiseptic solution may be put in the wound. A liberal application of pine tar will keep flies away, is soothing and will help the wound to heal. If the above directions are followed and clean quarters are provided, the cut will heal rapidly and very little, if any, break will be made in the gains which should be made.

The most important factor in wean-

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A practical hog-raiser to join with Georgia land owners in a large hog-raising enterprise. Address GEORGIA CHAMBER OF COMMERCE, ATLANTA, GA.

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For sale. Ten males; bred gilts and small pigs. White faced, Spanish and S. S. Hamburg eggs, $1.00 for 15.
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Pleased to show stock, quote prices and answer inquiries at all times.
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Makes all animals thrive better, look better, **destroys and expels** intestinal and stomach worms which prey upon the digestive tract, robbing your animals of vitality and strength, and keeping them in an unthrifty and unprofitable condition. **Read this:**

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PRICES 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12. No orders filled for less than 40 lbs. on this 60 day trial offer. Never sold by peddlers nor in bulk; only in Trade-Marked Sal-Vet packages. Shipments for 60 days' trial are based on 1 lb. of Sal-Vet for each sheep or hog, and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular packages.



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Ship me enough SAL-VET to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days and at that time pay for it if it does what you claim. If it does not you are to cancel the charges.
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P.O.....State.....
Shipping Sta.....
No. of Sheep.....
Hogs.....
Cattle.....
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Have no help of my own and am determined to sell one or the other. I guarantee all information furnished. No trades.

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OKEENE, OKLA.

ing pigs successfully is to begin getting ready early. In other words, the pigs should be taught to eat beforehand and thus they will have learned not to depend entirely upon mother's milk for their nourishment. In order to teach the pig to eat, a pen or creep should be provided. They will learn to come into this for their feed and will not be molested by the sow. Pigs will usually begin to eat at three or four weeks of age and by the time they are eight weeks old, will be getting a large part of their feed in this way—hence, their milk is not missed so much if the proper ration is supplied them. Pigs of this age should be fed what they will readily clean up at least three times per day.

There are several different systems practiced in weaning pigs, depending somewhat upon the system of management. Some prefer to let the pigs suckle the sow as long as they will and let the sow wean them. This is, of course, not possible where two litters are raised per year. The disadvantages claimed for this method are that the pigs rely too much on the mother for their food and hence do not obtain all the feed they have capacity to utilize. The larger ones also get so they steal from the smaller—making very uneven litters. By such methods it is not so easy to get all the sows in the herd bred near the same time, which is an objection.

Another system advocated by a few is to remove the largest pigs at first and let the small ones continue to nurse their dam. By so doing, they plan to give the runts the advantage and they also think that there is less chance of udder trouble with the sow. It often happens, however, that instead of the objects desired being accomplished, that one of the two things results—either the few pigs left with the sow get too much milk, which causes indigestion, or since the milk flow is stimulated, more trouble is had with the udder than if all pigs had been removed and the feed of the sow cut down, thus stopping the milk flow to a considerable degree.

Perhaps the best way to wean is to remove the sow from the pigs when the pigs are 8 to 10 weeks of age; put the sow in dry lot or lot where forage is not abundant, and cut off the grain, supplying plenty of water for a day or so. This will cause the flow of milk to decrease rapidly. The feed may then be increased gradually so that the sow will usually come in heat and may be bred on the third day after the pigs are weaned.

If two litters are raised each year, it is necessary to wean the pigs by the time they are eight weeks of age and if the pigs are taught to eat beforehand, their growth will not be noticeably checked. Some men wean at five or six weeks, but no matter how much feed and attention these early weaned pigs have, they will always be at a disadvantage as compared with pigs receiving equal care and weaned at the age of eight weeks.

WHERE THE PERCHERONS GO.

To the American Breeder:—In response to inquiries as to the Percheron trade during the past five months, the Percheron Society of America has compiled a summary of transfers entered of record between November 1, 1913, and April 1, 1914.

During this time 4,935 transfer certificates were entered on the records. 1,836 of these were for animals sold prior to November 1, 1913. Of the 3,099 remaining, which were for animals actually sold between November 1, 1913, and April 1, 1914, 1,653 were for stallions and 1,446 were for mares. This actual record (which is known to be incomplete) of sales made during the five months named, shows that the Percheron trade has been active. It is worthy of note that more sales have been made by small farmers and breeders than heretofore. Personal reports from a great many farmer breeders justify the conclusion that the prices obtained for American bred horses have been more satisfactory than in the past.

The rank of the fifteen leading states according to Percherons purchased between November 1, 1913, and April 1, 1914, follows:

	Stallions.	Mares.	Total.
Illinois	315	399	714
Iowa	225	165	390
Indiana	189	81	270
Ohio	78	145	223
Kansas	90	107	197
Wisconsin	96	64	180
Minnesota	64	68	132
South Dakota	62	54	116
Nebraska	77	31	108
North Dakota	62	42	104
Missouri	51	50	101
Montana	50	25	75
New York	30	32	62
Pennsylvania	27	32	59
Oklahoma	37	20	57
Canada	88	14	102

Indiana has been especially active in the purchase of stallions, while Illinois, Ohio and Iowa, the oldest breeding states, have been heavy purchasers of mares. This is in accord with experience, for all well informed horsemen know that increase in the breeding of good horses is most rapid in sections where Percherons have been used long enough to demonstrate their advantage over light horses in farm work.—Wayne Dinsmore, Secretary.

SADDLE HORSE ASSOCIATION MEETING.

At the 24th annual meeting of the American Saddle Horse Breeders Association last month vice-presidents were chosen for 21 states, Canada, Hawaii and District of Columbia. The president, first and second vice-presidents and treasurer are Kentuckians, namely (and respectively), John B. Castleman, Claud M. Thomas, L. H. Thurman and Harry Weissinger.

The following new registration rules, repealing old rule No. 2, were adopted:

Rule 2. The female progeny of a registered saddle stallion whose first and second dams are by a registered saddle stallion, or whose first dam is by a registered stallion and whose second dam is registered in the Thoroughbred Stud Book.

Rule 3. A gelding by a registered stallion out of a mare that traces to registered saddle stock.

SOLD THE HORSES TOO QUICK.

To the American Breeder: I enclose you an ad to run in April 5th issue. I do not know what the charge will be, so send me bill and I will send check. Your paper must be a corker to advertise in. I wanted a draft stallion and I answered ten ads in the March 5th issue as soon as I got it, and I got replies from all that the horses were sold before they received my letter, so I am putting an ad in myself so as to get the first whack at it.—H. L. Todd, Orleans County, Vt.

To the American Breeder:—Enclosed find check for $6.00 for advertisement and to pay for the paper to January 1, 1917. I can't get along without the American Breeder. I think it the best paper published.—E. A. Jackson, Monroe County, Mo.

SADDLE STALLION, PERCHERONS AND 10 JACKS.

For sale. Registered saddle stallion by the Great Chester No. 10; sound and a good breeder. Two, two-year-old registered Percheron stallions and ten jacks from yearlings to five years old; from 14½ to 16¼ hands high for sale at reasonable prices. Write your wants or come and see me.

W. L. Graham,
Mackville, Washington County, Ky.

SADDLERS FOR SALE

Registered stallions and mares; all ages. Also a few Hereford bulls.
H. A. GREENWELL, Lakenan, Mo.

EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Ponies for sale. **W. H. Fulcomer, Belleville, Republic County, Kansas.**

GREAT PONY BARGAINS.

I am leaving the farm and will close out my reserved stock of Welsh-Hackney ponies, all from imported stock and high class in every particular. Bay, seal brown, dappled chestnut and gray. Stallion, mares, fillies and gelding.

OLATHE PONY FARM, Olathe, Kan.
Electric cars hourly and 10 steam trains daily from Kansas City.

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Council Chimes 2:07½; pure bred license No. 1769.

A demonstrated speed sire; sire of Minnie Chimes 2:04½, and many others in standard time. Liberal terms on application. Write for pedigree and information.

I have a good French draft stallion and a big grey jack for sale.

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My Morgans are large; 15 to 16 hands and 1050 to 1300 pounds; have clean, heavy bone and possess all of the style and endurance for which the breed is noted.

Having bought Headlight Morgan to head a selected stud of The Admiral mares, The Admiral is now for sale. He is 15¾ hands high; weight 1250 pounds, and is the greatest all-round horse I know. I have 200 of his get on the place; part of them for sale.

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For Sale. Ten registered black stallions; mature 15½ hands; 1,200 pounds. Mares and fillies from yearlings to mature ones. Describe what you want in first letter.

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R. F. D. No. 2.

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Two Morgan and one Percheron stallions; fine individuals and registered. If not sold at once will lease to responsible parties. Call at once.

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A Mare and a Stallion.

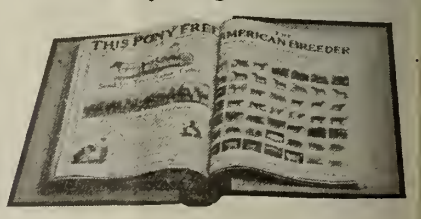
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No Trades.

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BELGIAN STALLION SHOW; PAGES 1, 5, 7, 11, 15 and 19



No 13—Height, 69; Heart, 90; Bone, 11½.



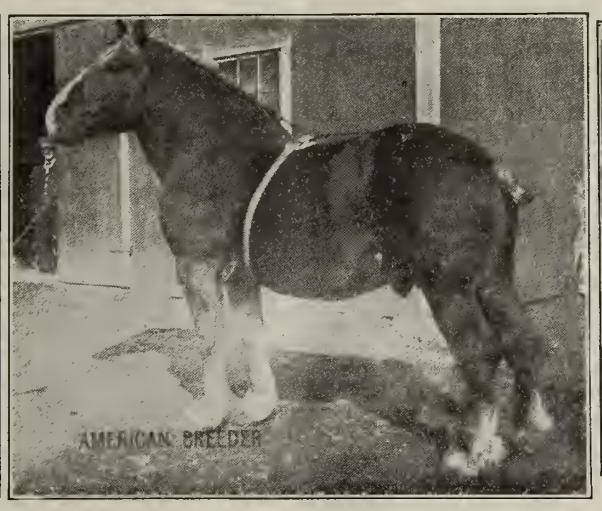
No. 20—Height, 68; Heart, 97; Bone, 11¾.



No. 18—Height, 69; Heart, 95; Bone, 11.



No. 40—Height, 66; Heart, 89; Bone, 11½.



No. 53—Height, 69; Heart, 84; Bone, 10½.



No. 2—Height, 68; Heart, 100; Bone, 12.



No. 6—Height, 67; Heart, 94; Bone, 12.



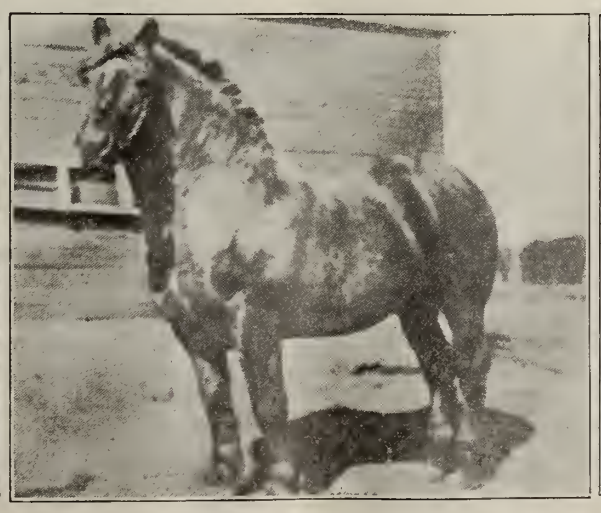
No. 55—Height, 68; Heart, 85; Bone, 10½.



No. 54—Height, 67¼; Heart, 93½; Bone, 10¾.



No. 23—Height, 66½; Heart, 94; Bone, 11¼.



No. 63—Height, 70; Heart, 99; Bone, 11½.



No. 57—Height, 68; Heart, 91; Bone, 11½.

Questions and Answers.

(Continued from Page 12.)

just the same as the good qualities. If the filly and her sire are both perfect this mating might be satisfactory; if there are any defects the produce might have them well established. Ordinarily in-breeding is not to be recommended only in the hands of those who are expert in type and constitution.

994.—REGISTERING JACKS—I have a young Missouri bred jack; he will be three years old next September. How many mares had I ought to breed with him this season? Please let me know how to register this jack and what it will cost me?—Oregon Subscriber.

REPLY.—About ten or twelve services might not hurt this jack, no two services closer than one week. Write to Wm. E. Morton, Secretary of the Standard Jack and Jennet Registry of America, 920 Scarritt Bldg., Kansas City, Mo., for application blanks immediately. If this jack measures 58 inches from the central part of the withers to the ground, 62 inches around the heart, 7 inches around the smallest place between the knee and the ankle, he can be registered, provided you do it before June 1st. Applications must reach the office before June 1st. It will cost you $2.00, unless you care to take out a membership fee; that will cost you $10. This will entitle you to register animals for $1.00 each.

995—STALLION DOES NOT DISCHARGE—Please tell me what to do for my five-year-old Belgian stallion. He serves a mare all right but he does not discharge. The stallion is fat and in good shape and is hearty and feeling fine. He gets oats, corn and good, clean hay and has a 40x40 foot lot. I do not give him any exercise and we have never overbred him.—Iowa Subscriber.

REPLY.—Get a tall gentle mare, one in which the vagina is very long. Take the grain away from this horse for half a day so the exertion will not cause him to get sick. Get him to urinate before he makes the service and let him make the service before the erection gets too severe. Let him start the service just as soon as you think it will do; when he mounts, let the mare take several steps. If this is not a success, put him in the barn, take his bridle off and close the door. In a few minutes try it again. After several attempts this should be successful. Be careful not to exert him too much and do not try to breed a small mare or especially one with a short vagina, to begin with. If you succeed in making a complete service keep this mare convenient so you can make a service occasionally with him. You may have difficulty on little mares or those having a short vagina. The penis of this stallion is probably very large. If he does not improve, slightly diminish the grain ration.

996—FILLING CAPSULES IN VAGINA—Can capsule breeding be successfully done by filling the capsule in the vagina? What is the best method?—Kansas Subscriber.

REPLY.—This is not very successful; when a capsule gets wet with semen on the inside and out it is very slippery and will dissolve quickly. We do not believe you will have much success with this plan. You will find full instructions for using capsules in the April 20th issue.

997—THREE-YEAR-OLD SERVICES—Is one mare per day too much for a three-year-old Percheron stallion? In my opinion four mares a week is a plenty.—Illinois Subscriber.

REPLY.—Your opinion is about right.

998—BREEDING MARES—Tell me what you think about breeding on the seventh day after the colt is foaled. My experience finds it a success, but some do not like the seventh day limit but want to come back on the 10th day. Will it hurt to turn your stallion out loose in the paddock when you breed, or not?—Illinois Subscriber.

REPLY.—If the mare has properly cleaned, the seventh day is very satisfactory; the ninth day is usually the regular date for breeding after delivery. The tenth day is frequently a little too late. We do not know just what you have reference to "turning your stallion loose" when you breed. There are some timid horses or tender mouthed horses that could be used loose to a better advantage, but ordinarily it is best to use a bridle. There is less danger with a good, substantial bridle.

999—BREEDING ABORTED MARES—There has been three of the mares I bred this spring that have thrown their colts; two of them had reasons but the other one I can't account for. Is there any danger in breeding them back this spring?—Wisconsin Subscriber.

REPLY.—All mares which have aborted from any cause should be bred with a capsule. Contagious abortion is liable to be introduced at any time. In some communities this has been very serious this spring. The hands should be thoroughly washed before going to the next mare so as not to convey any infection. The hands can be washed while the penis of the stallion cannot be successfully washed. After the ejaculation the glands penis wrinkles so that all the different parts are not easily cleansed and the place where the bean forms is practically impossible to clean at any time.

1,000—EQUIPMENT FOR CAPSULE BREEDING—Please tell me what is needed for the capsule breeding and what they cost. It is something new around this part.—Wisconsin Subscriber.

REPLY.—You will need a Natural Temperature Semen Extractor for capsule breeding and a tested hot water thermometer. The average thermometers are not very satisfactory as they will vary sometimes as much as five or ten degrees. You will need a pan 40 inches long, eight inches wide and six inches deep and some method of heating water to the boiling point. You will need a cracker box and two number two lamps; the lamps can be regulated so as to keep about the right temperature. You will need a good number of clean towels and a vessel of some kind to catch the semen in case it is spilled. We mention the Natural Temperature Semen Extractor because the long point can be quickly removed and the semen placed in the mare where it must retain its natural temperature when not in use. All impregnators and extractors having a long point or nozzle should be dispensed with, as the fluid is liable to chill when running through a long point which serves as a radiator. Those wishing to experiment can place a thermometer in the fluid at one end of such an instrument and test it, the other end to verify these statements. When an instrument is taken out of the water it cools quickly. It must be remembered that the temperature is the important thing in artificial breeding. When the capsule is filled it should be held in the hand so as to keep it warm and away from the direct rays of the sun. Any ordinary man can have good results in capsule breeding if he will use his head just a little. The principal thing is to deposit live spermatozoa in the uterus of a mare. This is all any stallion can do. It should be kept at about the right temperature. The Natural Temperature Semen Extractor makes this very convenient.

1,001—SHY BREEDING MARES—I have a bay mare 11 years old. She is in perfect health and good flesh and has been bred every year to the best of horses and has never raised a colt. She looks very red inside and has a discharge of a sticky nature that looks like a dirty white fluid; it is on her tail. I tested her for acid and the blue litmus paper turned red. What can I do for her? I have another mare in good shape, but very old; she has not had a colt for two years. She has raised several. Everything looks natural but she does not settle. What can I do for her?—Kansas Subscriber.

REPLY.—Use the saline solution every two days for about ten days on the first mare, then give her a rest of about two weeks, and breed her. Breed the other mare with a capsule about two days after she goes out of heat.

1,002—STANDARDBRED OR THOROUGHBRED—Please tell me the difference between a Standardbred and a Thoroughbred.—Oklahoma Subscriber.

REPLY.—The Thoroughbred horses have had a registry association longer than any other breed of horses in the

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¶ *Stallions imported direct from Europe,* will be sold so the average stallion owner can afford to own one of them. *Ready for Service* and will *pass inspection.* Those needing a horse to meet the increased demands of the coming breeding season, would do well to see the stallions that can be found in the barns of

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We have just purchased from Ed Harper of Onarga, Ill., his entire herd o Percherons consisting of weanling fillies and stud colts, yearling and 2-year-old fillies; some extra good imported and American bred mares, and the mother and sister of the champion American bred stallion at the 1909 International. This stock has the very best breeding, size and quality. Mares are all safe in foal and weigh 2,200 pounds. Everything will be priced to sell quickly.

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Four extra good Belgians; ages 6 to 7; average weight 2,300. One goo French draft; 4 years old; weight 2,000. This is an extra good one. These hav been used in our stud since imported, and we have many fine colts their gets, t show, as well as a large number of mares in foal, proving them splendid sires.

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and one Shire. They range in age from 1 to years; all sound and heavy boned; weighing fro 1800 to 2,200 pounds. There are 17 stallions and 1 mares. I will also sell my herd stallion, Jupite 65723, coming 5 years old; weight, 2200.

These stallions are all sold under a guarantee t be 60 per cent foal getters. I have four year old that weigh 2200; 2 coming 3 that weigh 1800. Ca sell a good ton stallion for $750; sound and righ in every way; some a little higher, and some lowe I will sell at a bargain to early buyers. I hav both imported and home bred stock. **PETER J. EGGERS. DENISON. IOWA.**

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Imported and home-bred stallions. guarantee to sell you stallions for les money than any firm in America. Com to a Live Horse Market and see a draft breeds. Reference, any Bank Creston. **A. Latimer Wilson, Creston Iowa.**

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For sale. Six head, 2 to 4 years old black; weight 1400 to 1950. Price $40 to $800. Call on or write to

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all ages for sale. I have recently ken over the entire stock of horses rmerly owned by the firm of Ives & eliman and can furnish patrons with rst-class breeding stock of the foreing breeds. Have a fine lot of 2 ar old and older stalllons to select om. Address,
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The best importation we ever made now in our barns ready for inspecn. The mares include some of the st fillies that came out of the Perche s year. See what we have before ying elsewhere. Address Hart Bros., ceola, Iowa.

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For sale. Plenty of bone and qual. Mares safe in foal. Most of these rses are Shire and Percheron crosses. n match some nice teams.
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llions. Can show the buyer one llion or 50, $450 and up. Some weigh 50 pounds. For sale, part cash, balce, 1, 2, and 3 years at 6 per cent.
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rld. They are an English product. andardbred horses are an American oduct, and the basis of this breed horses was founded on speed permances at either the trot or pace. oroughbred blood was used extenely in founding our Standardbred rses.

1,003—DOCKING IMPERFECT RSES—Do any of the foreign counes dock the tails of stallions as a rk signifying that the horse is imfect or blemished?—South Dakota bscriber.

REPLY.—No.

1,004—LACERATED MARES—Can a re that has ruptured the partition tween the rectum and vagina be succssfully bred so as to raise colts? not bred can a veterinarlan heal up e rupture by an operation so that would look well? I mean a case mmonly known as a "Jill Flirt."—uth Dakota Subscriber.

REPLY.—Such mares can be bred th the capsule system successfully, e only danger is at delivery; a part the body might get tangled in such way as to increase the laceration d cause death. Ordinarily there is t much danger from this. If a case not too bad a veterinarian can erate successfully.

1,005—LENGTH OF BURRO GESTAON—How long does a burro jennet after you get her in foal, until she als?—Colorado Subscriber.

REPLY.—About the same length as y other jennet and very little difrent from that of mares, possibly a tle longer.

1,005—RAISING HINNIES—Can a an breed a jennet for mules with the men from a horse? Has it been exrimented?—Oklahoma Subscriber.

REPLY.—There are many breeders ccessfully breeding burros to stalons with the capsule system. They not fertilize quite as readily as ares.

1,006—TESTING THE SEMEN—I ave a Percheron stallion weighing er a ton that isn't settling the mares he should. He will be four years d in September. I bred 20 mares to m last summer, beginning in Janary and ending in July, services from one to three per week, and some weeks none. I am now breeding from three to five services a week this season. He got 14 mares out of the 20 in foal last season. I give him from four to six miles exercise every day; feed him oats, bran and corn chop, have plenty of hay. He is fat and a good server. Let me know how to make him sure again. What per cent of the spermatozoa should be alive for him to be fertile? I have a microscope and test each service. There are some alive at each service.—Kansas Subscriber.

REPLY.—You should have a clinical thermometer and take the temperature of this horse. He may have a little touch of influenza or distemper. all of the spermatozoa should be active. Take the temperature in the rectum by placing the thermometer there and leaving it about one minute. If his temperature should be above 101 degrees, get the services of a good veterinarian as quickly as possible, as this is a serious time to have a sick horse. One of our most successful breeders discovered that his horse last year. The spermatozoa began to last year. The Spermatozoa began to show dead ones and in a few days his horse was very sick, but by having prompt attention he soon recovered and made a good season. The same stallion bred 185 mares the year before with good success. One cannot be too careful with a valuable stallion at this time of year.

1,007—ABORTION—I have a mare five years old now. I bred her in June and she did not come in heat again until late in the fall. What is the trouble with her? Had two older mares that did the same way. These mares were all bred to the same stallion and at about the same time.—North Dakota Subscriber.

REPLY.—You may have contagious abortion in your vicinity. The stallion may have served a mare having this disease shortly before the service on this mare was made. It is quite likely that contagious abortion is conveyed largely by the penis of the stallion or the hands which are inserted into the mare.

1,008—MARE FAILS TO SHOW HEAT—One of my customers has a mare five years old which seems to be in perfect health and which he says has never been in heat. Covered her two times with a horse to make her come in heat. Is there any way to make her come in heat? Could I breed her with a capsule successfully, and when?—Tennessee Subscriber.

REPLY.—She may have fertilized at the time she was served. If you are sure she is not in foal, breed her with a capsule and let her go.

1,009—COW FAILS TO FERTILIZE—One of my best young Shorthorn cows comes in heat every three weeks. No bull seems to be able to settle her. I would like to know if you know of anything that would make her a breeder again. She is a $500 cow if she will breed. Have had two calves.—South Dakota Subscriber.

REPLY.—You have not given us much information concerning this cow. The difficulty may be in the service. The Natural Temperature Semen Extractor may be used to get the semen from the vagina and be injected into the uterus. She may have a closed cervix. This is worth a trial. If you can give us any further information we will be glad to help you.

1,010—BREEDING A JENNET—I have a jennet that is hard to settle every time. She is 12 years old and has raised four colts but something like two years between each birth. Her last colt is nearly two years old now and she is not in foal. I bred her all last season, both by capsule and natural service. She comes in heat regularly. Would you advise me to breed her by capsule when not in heat? If so, which would you prefer, just after she goes out or just before she comes in? Or would it make any difference? She seems to be in good health. Any information would be thankfully received.—Illinois Subscriber.

REPLY.—Breed this jennet with a capsule about two days after she goes out of heat. This has given excellent results with a lot of jennets. After she is bred take her away where she cannot hear jacks.

1,011—A DOUBTFUL MARE—I have a mare that comes to my breeding barn. She didn't show anything wrong with her until after she was bred, then there was a thin, whitish discharge all the time. It must come from the womb for her vagina is clean. I would like to know what it is and what to do for it. It keeps frothing or foaming as it works out.—Nebraska Subscriber.

REPLY.—Try this mare in her regular heat period. If she is not in foal use the saline solution two or three times and then breed her.

1,012—TREATING DISEASED MARE—How much would you advise me to give of tincture of belladonna? Is one-half ounce all right? It will contract the neck of the womb all right will it not? What would you give a mare to relax the neck of the womb?—Illinois Subscriber.

REPLY.—We would not advise using the treatment mentioned. When the cervix is closed insert a capsule.

1,013—LENGTH OF HEAT—How long will a mare stay in heat? How long will a mare stay in heat after being bred? And how long before they will come in heat again after going out if they are not bred that heat period, or if bred and fail to conceive?—Illinois Subscriber.

REPLY.—We cannot answer your questions. Ordinarily a heat period will last from four to nine days with healthy, normal mares; some will stay in longer than others. Fertilization usually takes place about two to four days after the heat period closes.

1,014—FILLING CAPSULES ALONE—I would like to know some way that I could get the semen from the extractor into the capsule by myself and not get the capsule wet nor the semen chilled. Would it be better to put semen into the brown bottle and then

BELGIAN EMPORIUM OF AMERICA
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THESE MARES AND FILLIES ARE BRED TO MY CHAMPION IMPORTED STALLION, GLACIS 55260 (71473).
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The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to D. Augstin, Carlock, Ill., R. F. D. No. 2.
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FIFTY STALLIONS AND MARES.
$250 to $1000 Each.
Write for my illustrated Circular telling why I can save you money on the purchase of Percheron or Belgian stallion or mare.
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FOR SALE OR TRADE
For good, big producing Percheron mare or fillies, a fine coming three-year old jack sired by 1,250-pound jack and by big jennet.
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BELGIAN, SHIRE AND PERCHERON STALLIONS
and mares, also Standard bred stallions and mares, $200 and up. E. P. Hamilton & Sons, Garden Grove, Ia. (Mention this paper). 23 miles S. W. of Charlton, Ia., 82 miles south of Des Moines, Ia., at Leroy.

PERCHERON STALLIONS, MARES AND FILLIES.
Imported and home bred, for sale at reasonable prices.
W. C. BAUGHMAN, Pulaski, Iowa.

into capsule? If so, how would be a good way to fix the bottle so as to keep it totally submerged in the water? It is so hard to get mare owners to be quick enough with the capsule filling without overdoing the thing, and they hardly ever wash thoroughly enough, and to hire an assistant would eat up all my profit.—Illinois Subscriber.

REPLY.—With the Natural Temperature Semen Extractor you should have no difficulty in using any mare owner to help you. You do not have any long points to contend with. You might be able to get some neighbor to assist you for a few minutes each day. This would not be very expensive. We would not advise the bottle arrangement you speak of. If you will instruct the one who is to assist you thoroughly before you are ready to work you would not have any trouble in getting one qualified to help you with this operation. Just explain to them the necessity of doing it right and at the proper time.

1,015—STALLION DISMOUNTS — I have a Suffolk stallion five years old. At times he will mount a mare and as he starts to enter will stop for a minute, or dismount as if something hurts him; in a minute or two he will make service all right with the exception of coming off proud. At other times he will make as fine cover as could be asked for. Very seldom make more than one cover a day. Any advice you can give will be appreciated. —Colorado Subscriber.

REPLY.—Be sure your stallion urinates before you try to use him. Slightly diminish the grain ration. Try to make about one service every day with him so he will not get rank.

1016—RUPTURED STOMACH — Will you please tell me what was the matter with my jack. He was in good shape and seemed to be all right in every way. Had him out in the lot and he was playing part of the day in the afternoon; I bred a mare that night about dark. While the first mare of the season, he got on her and entered and worked a little, then came off without doing anything, but got ready in a few minutes and did his work all right, and I put him in his stall and fed him his oats and bran and prairie hay. He ate his supper all right, but next morning he did not eat his breakfast. When I turned him out in the lot he did not seem to be sick, but walked around and would draw his chin back toward his breast and then cough like a horse that was choked. He kept this up every once in a while, so I thought to wash the choke down. I gave him one egg out of a bottle, but as soon as he tried to swallow he commenced to vomit and threw up just like a man. Then I turned him out in the lot, but he commenced the same way. In about one hour I tried some clear water and he threw that up, so in about one more hour he commenced to die; then he broke out in a sweat all over and died in about an hour and a half. When I opened him his stomach was bursted and his lungs were black and hard; were as large as a two-gallon water bucket. There was more than one pint of bloody water about each testicle. This jack was not bloated when he died and his bowels were in good condition.—Oklahoma Subscriber.

REPLY.—It is quite likely your jack had a bad case of gastric indigestion during the night causing bloating and subsequent rupture of the stomach. The nausea induced by attempted drenching is frequently a symptom. Occurring as it did there was no help for the animal at the time you discovered him being ill.

1017—RUBS MANE—I have a horse that rubs his mane. What is the cause and what can I do to stop him?—Mississippi Subscriber.

REPLY.—It all depends. There is such a variety of things that will cause a horse to rub not only the mane but the tail that it would take a long article to discuss all phases of mane rubbing. The condition often arises from the annoyance of parasites, particularly hair lice. Again an animal too highly fed, kept too fat, too little exercise may induce mane or tail rubbing. Digestive disorders will occasion it or the presence of worms internally. Study your case and see if you can discover the cause of your trouble and if so write us again and perhaps we can help you.

1019—ENLARGEMENTS IN THE VAGINA—There is a mare that comes to my barn that her vagina is full of hard lumps from the size of a hen egg to as large as a man's fist. I have found several that way, but none quite as bad as this one. Can you tell me what this is and what to do?—Nebraska Subscriber.

DEPLY.—You do not state in what part of the vagina these so-called lumps are located. Are they in the wall or outside of the wall? Are they freely movable or fixed? Please give us as complete a description as possible so that we may be able to furnish you with the proper reply.

1020—ENLARGEMENTS IN VAGINA—I have a customer who has a mare that I have bred two years to two different stallions and this year he has another one that has been bred two years also to two different stallions, and neither settled. The former is four and the latter five years old. The first one has two lumps I think about three inches long and one inch thick and four like birds' eggs to the left of the large ones. The other mare has only two like the large ones. They are located in the vagina over the neck of the bladder. These are the only ones I have found. Will they prevent them breeding? If so, what could I do, or what should be done?—Kansas Subscriber.

REPLY.—The enlargements mentioned are usually occasioned by an obstruction in certain ducts that are located at the point mentioned. The condition could only be relieved by a veterinarian who had made this point a special study. In the meantime have you tried breeding these mares with a capsule or have you carefully examined the cases until you are sure the difficulty is not elsewhere?

1021—WEAK FOAL—We have a mare six years old that was bred to foal the first of May, and three weeks before she had the foal the milk began to flow out of her udder and when the colt came it was so weak that it could not stand up. We milked the mare and fed the colt, but it only lived a few days. We bred her again and her time will be up the 30th of April, and about two weeks ago her udder filled up and the milk is leaking out at times —flows in a small stream. The mare is a driver and weighs about 1,100 pounds; is quite thin in flesh although she has been well fed on oats, bran and corn and alfalfa hay. We fear the colt will be weak again this time and would like to know what to do for her or what can we do to save the colt if it is weak. We drive the mare almost every day, sometimes quite hard drives. Our local veterinarian advised cutting down her grain ration, but she is quite thin in flesh now.—Kansas Subscriber.

REPLY.—Your mare should not be thin in flesh even though she is in foal if you are feeding in the way indicated in your letter. We fear you have been giving her too much work. One should let up on the amount of severe work as pregnancy becomes advanced. Very little can be done at this stage except to discontinue work and permit the mare to take what exercise she cares to in pasture.

1022—FEEDING GROUND WHEAT—What is your opinion about feeding ground wheat instead of corn with oats? What will it take to make a feed with one gallon of oats three times a day?—Illinois Subscriber.

REPLY.—Ground wheat makes a very satisfactory feed for horses, and we have known of cases where it was fed exclusively as a grain ration during a season with good results. It should more properly, however, be fed with oats as indicated by your inquiry, in which case about the same amount may be added to the gallon of oats as you would corn chop. As to just how much depends on the easy keeping quality, size of animal and amount of work it may be called upon to perform.

1023—MARE HAS FITS—I have a mare that I bred last year and on the eighteenth day after breeding she began to have fits and continued to have them two or three times a week until within about four months of foaling time. She had a mule colt and colt is all right, but I bred her again this spring and she is having fits again. What is the cause of the trouble, and can you suggest a remedy?—Missouri Subscriber.

REPLY.—The treatment of epilepsy is not very satisfactory and if you are satisfied that pregnancy is responsible for the trouble you will have to discontinue breeding the mare.

1024—SCRATCHES—I have a horse that has the scratches on one hind foot. What should I do to cure him, as I don't seem to gain any headway. I have been washing with a disinfectant and using a powder.—Oklahoma Subscriber.

REPLY.—Apply the following twice a day: Sugar of lead, 2 ounces; zinc sulphate, 1½ ounces; rainwater sufficient to make a quart. Shake well before using. Keep the animal in a clean box stall and do not use water on the parts any more than enough to keep it respectably clean.

1025—LUXATION OF THE PATELLA—I have a yearling filly that has a dislocation of the patella or stifle. I have put it in place seven times, but when she lies down it comes out again. Please give some instructions for keeping it in place; also what to do in the way of treatment.—Missouri Subscriber.

REPLY.—Apply a severe blister to the region of the stifle, covering a place about six inches in diameter.

1026—DISCHARGE FROM PENIS—I recently got an imported Percheron stallion, 15 years old, to use on my registered mares. He is an extra good individual; weight, 2,000. I feed him one part corn, two parts oats with alfalfa, clover, timothy, clover and prairie hay. He is in good breeding flesh, not fat. He feels good; is a fine server, but a little anxious. Have bred him about three times a week so far. Yesterday after urinating I no-

TO ALL JACK AND JENNET OWNERS

IMPORTANT NOTICE

CHANGE IN REQUIREMENTS TO GO IN EFFECT JUNE 1,1914.

At the regular annual meeting of the Stockholders of the Standard Jack and Jennet Registry of America held in Kansas City, Missouri, October 6, 1913, changes in rules 2 and 3 of the "Rules of Entry" were adopted, whereby the requirements for entry were made more difficult. This change is to go into effect on June 1, 1914. This is the first step toward closing the record to all except offspring of registered Sire and Dam. It will be only a short time until you will be no longer able to register your jack or jennet on measurements.

If you want to take advantage of the opportunity to register your jacks and jennets under rules 2 and 3, now is the time to wake up and get busy. You probably own animals that will qualify under the present requirements, but which will be forever disqualified under the new rules. This may seem hard, but a majority of the stockholders were for raising the standard, and this registry never has and never will take a step backward. If your jacks and jennets will qualify under rules 2 and 3 you can have them registered, provided you get the applications into this registry office by June 1. Do not put this off until it is too late. If you do, you can't blame me, for I am giving you notice in plenty of time. If you need more blanks write for them right away. If you delay until the last minute before sending them in and something is wrong with your application, causing it to be returned, you would lose out by not having time to get it back to the office before June first. Remember the date—June first.

For blanks, or any information, address

STANDARD JACK AND JENNET REGISTRY OF AMERICA, Wm. E. Morton, Sec'y, 920 Scarritt Bldg., Kansas City, Mo.

30 Head of Jacks For Sale

From Two of the Best Herds in the State of Kansas

From 14 to 16 hands high; 2 to 6 years old. Nicely broken and good workers. Good serviceable jacks and prize winners. We won more premiums at Hutchinson State Fair last year than all other exhibitors combined. Everything guaranteed as represented. Write us your wants, or visit our farms.

H. T. HINEMAN & SONS, Dighton, Kas. **D. J. HUTCHINS, Sterling, Kas.**

JACK

For sale or trade. He is black with white points; 15 hands high; good head and ear; prompt worker and sure breeder. Would trade for a young, high grade Percheron filly or a good registered Shorthorn cow, or sell him cheap for cash. I am using capsules and do not need but one jack. This jack is a good breeder on mares; have mules to show what he does.
W. F. CORBIN, CORDER, MO.

BIG MAMMOTH JACKS AND JENNETS.

For sale. I have some good jennets which are kin to my herd jack, for sale at a bargain. Also young jacks, one to coming four years old, and the large, big boned Poland China hogs, breed sows and boars old enough for service, and pigs. Seven miles North of Monett on Frisco R. R., and six miles Southwest of Hoberg on Mo. Pac. R. R. Write for prices to
Henry Obermann & Son, Freistatt, Mo.

JACKS.



The kind all are looking for; large boned, black Mammoth Tennessee and Kentucky jacks; 2 to 6 years old; guaranteed and priced to sell; all broken and prompt servers. Reference, banks of Lawrence. 40 miles west of Kansas City on U. P. and Santa Fe.
AL. E. SMITH, Lawrence, Kans.

14 GOOD BREEDING JACKS.

Also imported Percheron and Belgian stallions; some weigh 2160 pounds. Stock for sale on long time payments, 1, 2 and 3 years at 6 per cent.
R. I. LITTLE, Route 2, FAIRFAX, IA.

7 Jacks and 12 Jennets

FOR SALE

Or Will Trade for Land in Rain Belt

H. A. Schwatken, Hammond, Kas.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address
J. C. HUCKSTEP, Eolia, Pike County, Mo.

6-JACKS--6
17-JENNETS-17

The jacks are three and four years old, and they and the jennets are all good stock. All black with mealy noses. I want to close them out this spring, and will make the prices right.
JOHN A. EDWARDS, Englewood, Kas.

BELGIAN STALLION SHOW; PAGES 1, 5, 7, 11, 15, and 19



No. 25—Height, 71; Heart, 92; Bone, 11½.



No. 4—Height, 70; Heart, 92; Bone, 11.



No. 30—Height, 66; Heart, 90; Bone, 11½.



No. 43—Height, 70; Heart, 87; Bone, 11.



No. 59—Height, 64¼; Heart, 84½; Bone, 10¾.



No. 41—Height, 70; Heart, 96; Bone, 12.



No. 14—Height, 66; Heart, 84; Bone, 10¼.



No. 26—Height, 72; Heart, 89; Bone, 12.



No. 56—Height, 68½; Heart, 87; Bone, 11.



No. 34—Height, 72; Heart, 84; Bone, 11.



No. 16—Height, 70; Heart, 97; Bone, 12.



No. 1—Height, 65; Heart, 84; Bone, 10.

Fine Kentucky Jacks For Sale



Will be in Hiawatha, Kas., about March 6th with a car load of fine Kentucky jacks for sale privately. Anyone wanting a jack call and see our stock.

Also have 40 head of jacks and jennets at our home, **Poplar Plains, Ky.**, for sale privately. Ages from one to four years. **SAUNDERS & MAGGARD.**

"WE HAVE WHAT WE ADVERTISE" For Sale.



15 head of big black jacks; 3 to 6 years old; 14½ to 16 hands. Big bone, heads. The right kind.

Also some draft and saddle stallions. All priced to sell.

MILTON GUSTIN, Edgerton, Mo.

Three Jacks

For sale or trade. Can use good, young draft stallion. One jack seven years old; weight 1,050. All O. K. every way or money refunded.

T. B. McClellan, Stratton, Neb.
Box 23.

ticed something like the white of an egg or semen (about two tablespoonfuls) on the ground. Don't know if it came from the urine or after. What is the cause? Was it in the nature of masturbation or from the bladder or from the testicles? Will it hurt him from breeding? Will it disease the mare? Will it do to keep on breeding him? Did you ever hear of anything like it before? Any information will be appreciated.—Kansas Subscriber.

REPLY.—If this animal is known to be a reasonably sure foal getter in the past we doubt, if he is properly handled, that he will form the habit of masturbating at his age. We are inclined to think that the discharge was the nature of mucous or possibly from cowpers or the prostrate gland. Keep watch of him, however, unobserved by him, to satisfy yourself on the point of masturbation.

1027—COWS EATING MANURE — I would like to know if the manure from horses is not good for cows.—Iowa Subscriber.

REPLY.—While cows are inclined to eat all sorts of foreign substances and even filth the practice of allowing cows access to horse manure piles should be denied. This practice is wholly unsanitary and filthy, besides the products are more or less excreted through the milk.

1028 — SYNOVIAL DISTENSION — I have an imported stallion that passed state inspection this spring as sound. Now about two weeks ago I noticed that on one of his hind legs on the inside of the hock joint, where there seems to be a small wind puff on all horses, that this soft part is growing, but it does not make him lame This enlargement is on the part of the joint where a bog spavin comes. Now is there anything we can do for it to take it off?—Nebraska Subscriber.

REPLY.—Your animal is threatened with a bog spavin, perhaps induced by a slight injury while serving mares. The less strain placed upon the hock joints the better until you succeed in getting the condition under control. Apply tincture of iodine to the parts twice a day with a small brush, until the parts become quite sore. Then allow the skin to remain hard and dry so as to shrink and compress the parts. Use no grease at this time. As soon as the case will permit again apply the iodine. It will take some time to control the condition so you must not expect prompt results from any line of application.

1029—CHRONIC LAMINITIS—I have a 5-year-old gelding that got foundered last winter. He was driven hard for thirty miles and came in hot and he was watered and fed right away. I am told he is chest foundered, for his chest looks as if it was shoved back. Will you please tell me what to do for him? Do you think he will be any good?—Montana Subscriber.

REPLY.—Cases of chronic laminitis are very difficult to treat successfully, but if not too bad have your veterinarian look him over with an idea of performing median neurectomy. As a rule this operation can be done safely on these cases, and while it does not perfectly relieve yet many otherwise worthless animals may be helped to a point of doing slow work.

1030—IMPACTION OF THE BOWELS —Will you please suggest a remedy for impaction of the bowels in horses if there is any, as we are losing a great many about here from that cause. Alfalfa is the principal feed. The attacks are almost invariably fatal. It is believed by some that it is caused by the coarse, unmasticated stems obstructing the bowels. Horses that seem most liable to the trouble are those on early spring or late fall pasture that are liable to get the dead, hard stubble left by the mower. Also this spring a good many horses that seem to be in the best of condition get a little wound or abrasion of the skin on the legs and seem to get some kind of an infection in it; it swells badly and often the lower part of the body swells and the swelling is very hard and abscesses form and pus discharges. Kindly give us your opinion of the cause and remedy.—New Mexico Subscriber.

REPLY.—There is no one food that will cause so severe and oft times fatal cases of impaction of the bowels of horses as alfalfa. This statement applies to alfalfa in any form from the choicest cured green provender to the refuse mixed with old dried up forage. Horses when accustomed to alfalfa grow very fond of it and will consume too much if permitted free access to it. The cases of impaction are more properly overloading. Horses will eat alfalfa and die just as long as owners feed it too exclusively. It is a plant that should be dealt out to animals just the same as grain rations. Owners should take note of this. Veterinarians lose these cases in spite of the best known treatment. The treatment does not vary materially from other cases of impaction. Copious injections of warm water, frequently repeated, per rectum with the usual physics by the mouth is the line generally followed. Your other cases are probably those of local infection. Make frequent applications of tincture of iodine to the abrazed places.

1031—THICK WINDED MARE — A mare 12 years old and weighs about 1,600 pounds. She has run on the range nearly all of the time; generally work her some every spring. Got with colt when two years old, but lost her colt. Did not get with colt until four years ago and raised it and missed a year and raised another and has failed this year. About four years ago she seemed to be thick winded and has gradually grown worse since. I took the shoes off of her and she had a spell of wheezing and seemed like she was choking; would stagger and lie down and after about twenty minutes she got better; she does not breath exactly right yet; with a little exertion, is as bad as ever. Opens her mouth (her tongue is blue) and flings her head up and down as if she could not get enough air. She seems to be heavy at times. She is in good shape and looks the best I ever saw her.—Wyoming Subscriber.

REPLY.—It is difficult to determine from your description just what is responsible for the defective wind in your animal. So much depends on just how an animal acts when being rapidly exercised. We fear you have what is termed a case of bilatural paralysis of the muscles controlling the vocal cords. We would suggest that you have her examined by a good competent veterinarian, inasmuch as we are satisfied that the case is one that will require surgical treatment in order to effect a cure.

1032—INFECTED COLT—I have a brood mare whose foal is infected every year of late, and want to know whether you think it is infected before, at time or after foaling, as I take the best of care of her foaling place and sometimes they come on the grass, which seems to have the same ill effect. Do you think it will do to wash the mare out with a weak solution of carbolic acid water? This mare is registered in the Percheron Society of America and I would like to be able to save her colts. I am looking for her to foal any time now, as her time was up the 13th of this month.—Missouri Subscriber.

JACKSORINE, THE BEST

Cure For Sores on the Legs of Jacks and Stallions, Now Sells for $3.50.

This undoubtedly is the best remedy for jack sores ever put out. It is made from a scientific prescription and was used with absolute success by the president of this company on his own stock.

Two years ago we began selling JACKSORINE to the public, charging $5.00 per can and refunding the money in every case which did not effect a cure. Less than three purchasers out of every hundred claimed a refund, and doubtless in these cases the **JACKSORINE** did a lot of good, although as these cases were from 100 to 1,400 miles distant it was impossible to investigate and we simply refunded the $5 in all cases.

Because of this condition and the fact that the increased demand enables us to buy our chemicals much cheaper, we believe it is fairer to all to reduce the price as much as possible and let everybody buy on the same basis. Every purchaser will get **JACKSORINE** of absolutely the same formula, quality and quantity as we sold at $5. **Remember, the price is $3.50 per can, postpaid.** Remit by P. O. order or bank draft to

O. P. WILSON & CO.,

Lock Box 489, Kansas City, Mo.

REPLY.—Your inquiry is of a very indefinite nature but we presume you have in mind an infected navel, this giving rise to the disease known by stockmen as navel ill.

We fear you have premises that are infected with the germs responsible for this disease and if weather conditions are such that the mare cannot safely foal out in the pasture, then you must thoroughly clean up a suitable box stall. Remove all litter and burn. Level up the stall and then thoroughly wet all the wood work and floor with a corrosive sublimate solution, using one ounce to eight gallons of warm water. Handle this drug with care as it is poisonous. Follow with a thin coat of white-wash which should be brushed into every crack and crevice. Finally fill in the stall with several inches of fresh earth from a plowed field. Wash the external genitals with a two per cent lysol once a day until foaling time. Be on hand to disinfect the cord as soon as possible after being dropped and then follow the plan so frequently outlined in these columns heretofore.

1033—COLT BITES OBJECTS — My Standard bred colt, fifteen days old, has been trying to bite everything he can get hold of since two days old. Would take my coat in his teeth, bite the boards around the lot or even take hold of the wire where it comes handy. It seems like the two lower front teeth are crowding and I fear he will develop cribbing. We have no graduate veterinarian, so cannot have him treated, so will have to do so myself. Please advise me. Colt is healthy and growing fast.—Oklahoma Subscriber.

REPLY.—The habit of young foals nibbling objects is only colt nature. Permit the dam to run out on clean pasture and if the colt needs anything to correct anything in the system that may be wrong it will have the opportunity to do so. By giving the colt larger range it will not be near so apt to bite objects and in this way aid in preventing the cribbing habit.

1034—FISTULOUS TRACT—I had a yearling colt that had a lump on jaw last fall, which broke and run, and still runs, and is very offensive, and I find by examining it that it has a pipe in it about the size of a finger, that runs up under the jaw bone. Is there anything that I can inject to eat that out or will I have to have it operated on by a veterinarian? There is no veterinarian within fifty miles of my place.—Colorado Subscriber.

REPLY.—We would judge that the fistulous tract leads either to some diseased bone or the root of a decayed tooth and in either case it will necessitate an operation such as you no doubt are not in position to successfully undertake.

LEAVENWORTH COUNTY JACK FARM.

Established 1882. 25 head of Mammoth jacks and jennets. Write for prices.

CORSON BROS., Potter, Kansas
On Santa Fe Ry.



300 HEAD of Colorado raised Jacks, Jennets Mules and Brood Mares All guaranteed. Prices right. **Lewis Swink & Son, Rocky Ford, Otero County, Colorado.**

Jacks For Private Sale

In order to reduce my jack stock will sell at very much reduced prices for the next 60 days. I raised most all of my jack stock and can sell them cheaper than the man that deals in them. My jacks are all black with white points; in ages from 2 to years old; in sizes up to 15¾ hands. **U. G., SAUNDERS, Flemingsburg, Ky**



50 registered, b l boned black jacks and jennets. Colts to 1 hands; big, stylish, good lookers; great mul jacks. **J. H. SMITH KINGFISHER, OKLA**

MAMMOTHJACKS

For sale—Large, heavy boned, 15 t 16 hands high. Prices from $250 u Located eight miles west of Ceda Rapids, Ia., near Fairfax.

JOHN HENRY, Fairfax, Ia



JACKS.

20 good black jack and some good jen nets; coming 3 to com ing 8 years old. Large heavy boned, broken mares and prompt servers. Prices rea sonable. Come an see me. Barns tw miles from town.

Phil Walker, Moline, Elk County, Ka

EXTRA GOOD JACK

For Sale. Coming 4 years old; 15 hands standard; weight around 1,1 pounds; black, with white points, nic ly marked. Sired by Missouri Kin that sold for $2,000. Good enough head anybody's herd of jennets. Com and see a good one; if you don't fin him strictly good I will pay your ex penses.

T. E. COLLINS, BELLEVILLE, KAN

35 KENTUCKY MAMMOTH JACKS



We will cut th prices from $100 $250 on every jack our barns for the nex 30 days. Special price on Percheron stallion mares and saddl horses. If you wan a bargain, come to ou farms and write or wire us when expect you.

COOK & BROWN, Lexington, K

KANSAS STALLIONS STAND "ON THE SQUARE"

State licenses were issued in Kanas for about 3,500 stallions during ebruary and March. The pedigree each animal was checked carefully the State Live Stock Registry oard before the license was given. W. McCampbell, assistant professor animal husbandry at the Kansas gricultural College, is secretary of is board and is keeping ten clerks isy handling this work. He has anvered more than 4,000 letters of inuiry from Kansas farmers since Febuary 1.

Occasionally a worthless pedigree is scovered. One man tried to account r six generations in eleven years. case was found where the sire aimed by the pedigree was not imorted until a year after the colt was orn. Records are on file in this ofce of all stallions ever imported into merica and it is possible to check y pedigree received. Property orth $4,250,000 is checked by this epartment every year.

"Fifty-five per cent of the sires ed in Kansas are grades and scrubs," ys Dr. McCampbell. In Kansas durg 1909 more than 2,000 stallions adrtised as pure breds were only ades and scrubs. The mare owners, alizing that they were being deived, demanded protection of the legature. It responded by passing what known as The Stallion Law, the purse of which is to require stallion wners to advertise and represent eir goods for just what they are orth. Under this law every stallion ust have a state license and to sere a license stallion owners must bmit pedigree and statement of eeding to the State Live Stock Regtry Board for inspection. After ecking up the breeding and estabhing the identity of the stallion for hich a license is asked, he is censed according to his breeding, as pure bred, cross bred, grade, or rub. This license must be posted a conspicuous place where the stalon is kept for service.

The Stallion Law protects the owner the stallion as well as the owner of e mare. Many times the owner who ivertises a scrub stallion as a pure ed believes that it is pure bred and ought it as such. The prospective allion purchaser may be sure that is getting just what he is paying r, if he has the pedigree checked by r. McCampbell before making the rchase.

COMPETENT MAN'S SUCCESS.

To the American Breeder: I am in ceipt of your valued letter in this orning's mail. I greatly appreciate e attitude you take in this matter. y colt crop has commenced to come d this is one of the seasons that I n going to have a great many caple colts. I had great success, the ghest number at one service being ght, and I settled six out of the ght. I am under many obligations the American Breeder for my sucss.—H. M. Justice, Johnson County, ans.

OOD POSTS FROM CHEAP WOOD.

An experiment covering twenty ears, to determine the value of post eatment was recently completed uner conditions, where decay is more pid than in the drier sections of the est.

The posts were treated by the folwing methods:

1. By charring.
2. By filling rock around the post hen set.
3. Putting on the preservation with brush.
4. By the open tank method of eatment, which consisted in keeping e posts and treating fluid heated up to the boiling point for two or three hours and then letting them cool down in the fluid.

The conclusions reached are as follows:

1. That charring the parts placed under ground does not add to their durability.
2. That filling in around the post with stone or brick-bats does not increase the durability.
3. That creosote is a better preservative than coal tar or petroleum.
4. That brush treatment is not nearly as effective as open tank treatment.
5. That cheap woods like cottonwood, when treated by the open tank method are cheaper and just as durable as the high priced cedar posts.

CANADIAN PERCHERON ASSOCIATION OFFERS SILVER TROPHY.

Secretary Dinsmore of the Percheron Society of America has just been advised that at a directors' meeting of the Canadian Percheron Association, held at Calgary, Canada, last week, it was unanimously decided to again offer a silver trophy costing $100, for the best American-bred stallion and four mares, to be competed for at the Chicago International, same as last year. This is offered through the Percheron Society of America.

E. R. Pipe, secretary of the Canadian association, writes: "The Canadian Percheron Association does this to show the cordial good feeling existing in Percheron ranks on both sides of the line, and in appreciation of the fact that the Percheron Society of America is offering generous prizes in Canada. Percheron matters are certainly booming in Canada. Every exhibition shows an increase in the number and quality of Percheron entries."

MR. RICKARD REPLIES.

To the American Breeder: — On page five of the "Breeder" of February 20th, I noticed that a Montana subscriber has the idea that the Ohio subscriber is not posted on Montana or its breeding facilities. I wish to say to him that I have shipped to Montana some of the best breeding stock ever owned in that state. No less than ten of my near relatives have been residents there since 1868 and I have handled carloads of their range horses for them here in Ohio.

We are aware that Montana is a civilized country and may be, as he says, up-to-date, but we are of the opinion that they are not so far advanced in the knowledge of breeding that they cannot improve upon it. A mongrel of any kind of stock fails to bring the price in the market today and the man that raises it needs to be waked up to that fact. If the Montana subscriber should bring some of those fine western horses, he speaks about, to the eastern states to sell, he might find out where the amusement comes in. Especially the offspring of those 800 to 1,100 pound mares mated with the 1,800 pound Percheron stallion.

The "Good Book" says, "The way is so clear that no man has reason to fear therein, though he may be a fool." This matter is not a question of amusement or civilization but a matter of good judgment of stock breeding for profit, and the experience of men that have been at both ends of the business for forty years and are apt to know something about the matter.—E. A. Rickard, Ashtabula County, Ohio.



An Osborne County, Kansas, Driving Team That Does Not Fear the Automobile Competition.

TO KNOW WHEN A MARE IS IN FOAL.

To the American Breeder:—I have been waiting for an answer to Mr. M. E. Mayos' breeding questions, but have not found an answer up to date, so I will try to answer it myself. When a mare is in foal she will urinate close to her heels and when through will stop gradually, but when not in foal the urine will stop and then spurt back a time or two. When a mare is in foal her neck will be hard like a gelding's neck and the kernels under the tongue will be round and of a brighter red. Remember there are exceptions in all cases. —Fred Asa, Blaine County, Idaho.

Automatic Stallion Bridle



Manufactured Exlusively by Peter Young, Assumption, Ill.

Controls the most unruly stallion without injury and will not hurt the kindest and most docile horse. Fits the largest draft stallion or the smallest roadster without adjustment. Made of the best leather. Shipment will be made on receipt of order, as I have them in stock at all times.

Order one, and if not satisfactory, return it and your money will be cheerfully refunded. **Price $3.50, with order.** Can be sent by mail.

Cuts of All Kinds
Made from Photographs

If you have a good photograph of your stallion, jack or any other animal, or of your house, barn or yourself, we can make you a cut from it, any size you want. **$2 pays for such a cut 3x3½ inches, or smaller, if photo is clear. Larger cuts in proportion.**

Ready Made Cuts at Lower Prices

We keep on hands the best line of stallion and jack cuts to be found in the country—a new line true to life, made from original photographs. Send for sample sheet and subscribers' prices.

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To the American Breeder:—Montana is one of the best and healthiest stock countries in the United States. Its grasses cannot be surpassed by any state in the union; in the winter months there are thousands of cattle, sheep and horses fattened on hay alone and shipped east and west, and bring top prices. Hay grows in abundance and we need no corn to fatten our stock. That saves much expense.

We have an everlasting soil, plenty of good running water, and good range; all kinds of free timber for building purposes and fire-wood. Good meadow land can be bought in this vicinity for $35 an acre, up, according to location. Don't be afraid to come to Montana and go into any kind of business.—D. J. Coughlin, Powell County, Mont.

DANDELIONS IN THE ALFALFA FIELD.

To the American Breeder: In a number of localities dandelions are taking the alfalfa. Serious trouble has been reported from both the east west slopes in this state. There seems to be but one thing to do in such cases, and that is to plow up the alfalfa and grow a cultivated crop. Several years of good cultivation will do away not only with the dandelion but with other weeds as well. Return may then be made to alfalfa.—W. W. Robbins, Colorado Agricultural College.

Characteristics of the Belgians

BY LEON VON MELDERT,
Harris County, Texas.

The height of the Belgian horse, varies from 15½ to 16¾ hands and stallions weigh from 2,200 to 2,500 pounds. The Belgian stallion is the heaviest one among the draft breeds.

The Belgian horse is short-legged. All leggy stallions have been discarded by the experts at the yearly examination, at the shows, at the fairs. The Belgian horse is broad between the hips, he has considerable girth measure. The back line is straight, the loins are well coupled. The hocks are large, clean, so are the knees.

It is very scarce to find among them bony diseases, such as curbs, spavine, jards, and splints. Sometimes on old horses, a sidebone may be found, but this is in every instance due to traumatism of the coronet. Roaring is very scarce. The Belgian horses have very good feet, better feet than any horse among the draft breeds. Do not take a Flemish stallion for a Belgian. The old Flemish horse was flat footed. He was used to give weight to the Percheron and the English draft breeds.

In 1880, at the National Horse Fair at Brussels, the 625 horses shown were divided as to the color of their coats as shown in the table below. Twenty-four years later, in 1904, 740 horses entered in the horse fair showed a marked change in their proportion, figures for which are also given:

	Number of Each		Percent of Each	
Colors	1880	1904	1880	1904
Bays	276	323	441	43.6
Sorrels	81	262	13.3	35.4
Blacks	41	25	6.5	3.4
Grays	108	37	17.3	5
Roans	82	65	13.4	8.8
Strawberry Roan	34	28	5.4	3.8

It appears from these figures that the grays or white horses are disappearing very fast from the Belgian breeding stable, and then the blacks, and that is because the foreigners do not want horses with that coat. There is a great increase among the sorrel horses apparently because the best Belgian prize winning horses are sorrels and among them those noted sires: Brilliant, Jupiter, Brin d'Or, Reve d'Or, Biogene, Conde, Mont d'Or.

The American breeders like best the bay horse and there are plenty of them in Belgium. almost half of the total number of horses are bay horses. If we go through the American register of Belgian horses, we will find that between the years 1880-1887, the percentage of colors of imported horses are as follows:

Bays, 81; blacks. 12.4: sorrels, 2.8; roans, 2.6; white and grays, 1.2.

Between the years 1907-1910, we find the following percentages:

Bays, 53.4; blacks, 5: sorrels. 25.6; roans, 15.2: white and grays, 1.

As for the transmissibility of the colors, a close counting for them in the stud books gives the following figures:

Where sires and dams are of the same color. on 1,000 colts bred by them, the colors of both parents will appear 856 times.

Where sires and dams are of different colors, on 1.000 colts, 437 will inherit the color of the sire, 508 that one of the dam, and 55 may have other colors.

Belgian horses live to an old age and are able to keep their usefulness for long years. Among those stallions whose production have been renowned. we mav cite the following that have been living to a venerable age:

Orange I (1144) which at 21 years of age was still the head stallion of M, M, Jules Hazard's breeding stable, **Brilliant** (708), son of Orange was still breeding the best of M. Dumont's mares when he was 20 years old. **Jean I** (1200) was still useful as a stallion when he was 26 years old. Among those horses, the most interesting one is **Orange I,** sire of the two mightiest horses in Belgium, **Brilliant** and **Jupiter,** sires and grand sires of the purple-blooded Belgian draft horses.

The Belgian mares seem to get still much older than stallions. Among the old mares at the horse fair in 1893 at Brussels, and one which surely deserved her name, was **Grand 'Mere** (Grandmother). She was born in 1851 at at Heusies (Hainault) in Mr. Dessailly's stable, and when she was 40 years old she had a strong, good looking colt. This was her thirty-second foal. In the United States we have also examples of longevity of imported Belgian horses. The stallion Blondel (369) when 21 years old, had 58 living colts in 1908 and when 22 years old he was bred to 110 mares.

Belgian stallions are also good foal getters. A record kept of many imported stallions in the United States, covering a period of many years gave the following results: The Suffolk stallions left 69 per cent of foals; the Belgians, 61 per cent; the Percherons, 55 per cent; the Clydesdales, 54 per cent; the Shires, 49 per cent.

Belgian colts grow very rapidly. When those colts are 20 months old they are strong enough to be broken to work, and they have such kind dispositions that they are very easily broken. When they are two years old, they are able to work enough to win their feed and from that time on they pay their rations by the amount of labor they are able to furnish.

The Belgian horse is easily fed. Any one who has been using Belgian horses knows that he will stand ordinary work with a small amount of feed and not lose his form. But the more he works, the more he must get to eat; he does not make an exception to this universal law. With the same amount of feed he will keep fatter than any horse of any other breed. He is short bodied and any horseman knows that a short bodied horse is always kept easier than a long bodied one. A French writer, Mr. Fl. Desprez, says that Belgian horses do not want to eat so much as French horses to be kept in good state.

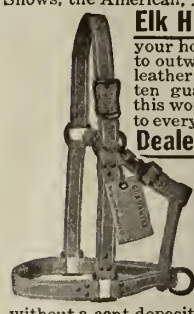
The Belgian horse is also very hardy. No horse can acclimate himself easier, to different climates, soil surroundings and feeding. Wherever he is imported he will get used to his new country with no difficulty. We find him in Russia, in Norway, in Sweden, in Denmark, in Switzerland, in Austria, in Italy, in Canada, Texas and Mexico, in the United States, in Argentina and in Japan. In this county he stands just as well the cool climate of the Dakotas as the Sunny South in Texas.

Belgian horses have a kind disposition. They have good eyes and do not get scared. In Belgium these horses are driven with a single line and are obedient to the voice of their driver. Farmers do not have to use a whip. Belgian horses have a long, active walking gait, and it is from them that the Clydesdales inherited the same walking gait they are sought for. At the trot the Belgian horses have an easy long stride. Heavy draft horses should not have to trot, but the easiness with which they are able to trot, shows that they are correctly built.

The question of establishing a a standard for the Belgian draft horse

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Stallion Service Record Book

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The breeding contract at the bottom is the strongest possible kind of a note. It is a big help in making collections, as nearly every state has a law for the collection of labor debts without exemption, and this is a contract to pay for services rendered. Before it is signed run a pencil through two of the lines in the contract, leaving the line that makes the kind of a contract you want. Many will sign a contract who would refuse to give a note.

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Sire Lucifer
Mare Belle Color Gray Age 6
Marks Left front foot white
Womb {Closed / Healthy / Loose} Height 16 hands Colt {Yes / No}
Mare Owner John Brown
P. O. Kansas City, Mo.
Capsule

DATE BRED.

Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1									
...	...	...	...	...	...	...	...	...	...
22									

RETRIED

	15								
...	...	...	...	...	...	...	...	...	...
	22								

BREEDING CONTRACT

$ 15 00 Date Feb. 1, 1914

For services rendered, I promise to pay (fill in with stallion owner's name)
_____ or assigns fifteen dollars
~~When above described mare is known to be in foal~~
~~When above described mare delivers a living colt~~
When colt of above described mare stands and sucks
or before mare changes ownership, mortgaged or leaves county.

Signed John Brown

Page 16

Above shows exact size of page and the way to properly fill out the blank for one form of breeding contract, scratching out extra lines.



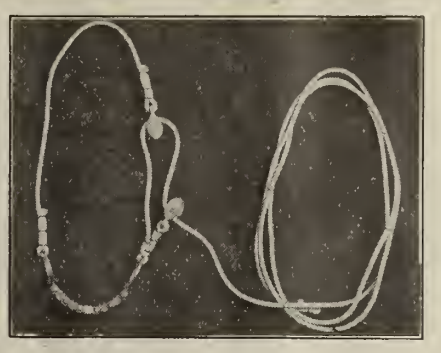
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s been discussed several times and .s never been solved. There is no fficulty in laying down the requirements of conformation of a Belgian rse. No horse was never built by ture so close to the standard perction of the draft horse. This horse as bred in a country of heavy work cause of a very dense population, d the reproduction was insured by e best fitted animals for draft purses. As a result the Belgian horse drafty all the way through. His eight will be over 2,200 pounds hen three years old; his coat may of any color. The head will not easure over 40 per cent of the height the withers. The ears are far apart t not flapping. The forehead is oad, the muzzle is small. The nose ones are straight with sometimes a all depression at the place of the se band. The eyes are large, soft their expression. The jaws are avy muscled and wide apart. The strils are well cut. The neck is ort from the throttle to the point the sternum, long and arched from tween the ears to the withers, nev- hanging over, well muscled. The oulders are long, well set back, oping with a great collar surface. he point of the shoulder, just like e point of the sternum are high, rhaps higher than in any other eed of horses. The arm is long, ell set with plenty of muscles cov- ing it. The forearm is short, uscled, and heavy. The knees are at, broad and large, measuring very ten over 17 inches girth. The cannon ne is large, girthing at least eleven ches. The tendons are well set ack. The pasterns are short and avy boned. The hoofs are iron like ith high heels. The lower surface the hoof is round just like the ot of a colt that was never shod; e frog is large and elastic. The est is broad, deep, with round ribs. he vertical diameter of the chest at e withers is over 50 per cent of the eight at the withers. The chest is anging low between the shoulders. he back is short, straight and broad. o are the loins. The croup is round, road, muscled, not level nor droopg, loaded with an abundance of uscles. The tail is well carried. he hams are full. The legs are short, uscled. The hocks are large, broad, ick and their point is at 40 p. c. f the horse's height from the ground. he cannon bones of the hind legs are heavier than the front ones and will have the same kind of qualities, and so will the lower parts of the limbs. Along the back part of the tendons there may be some long hair.

Most of the Belgian breeders do not care about breeding principles laid out by theoretical men. As they are practical men, they will only follow their own suggestions. A young stallion even if he should be a prize winner will not appeal to their preference, if the stable where he was raised has not got any reputation. They will rather give their mares to stallions which perhaps are a little coarse, if they have a first class frame, if they are short legged and especially if they have got some good colts. They will tell you: "The sire is perhaps not a very fine one, but he had some first class colts." But if a stallion has had many ribbons at the shows and if he has a good many colts that are prize winners, then the owners of good mares do not object to paying a high stallion fee, that is from fifty dollars to one hundred dollars per mare, and sometimes more.

Inbreeding is avoided as much as possible, but not always rejected because it is a fact that a great many horses of great merit are the result of close breeding. It is so also among the thoroughbreds and the standard breeds; why should it not be among the draft breeds? The stallion Orange I was the result of close breeding. His sire Forton is a grandson of Le Gros de Wynhuizen and his dam is a grandmother of the same horse. Orange II, son of Orange I, was a great grandson of Gros de Wynhuizen on his dam's side.

In the famous stables of M. Merinkx-Cloquet, who raised the world champion Reve d'Or, a great many horses are inbred. So is the case also with the stables of M. Jules Hazard, where there are seventy brood mares. He raised the champion mare, Helena de Fosteau, and this mare traces back to Orange I a great many times. The champion mare of 1893, Rosette II (7591), was sired by Jupiter, son of Orange I, and her dam was sired by Orange I. So is the case also of Franchette II, grand dam of Diogene, sired by Orange I. The stallion Diogene (54002), blue ribbon winner in Brussels in 1910, traces back to Orange I four times, twice to Jupiter, son of Orange I. Conde, the famous prize winner of 1911, traces twice to Brin d'Or, son of Jupiter. Helena (53703), champion mare for 1905, 1906, 1907, 1908, traces also four times to Orange I.

FOR SMALL MONTANA MARES.

To the American Breeder: — If "Montana" subscriber will buy a compact, blocky stallion with extra good conformation, with broad, flat, heavy bone showing well the sinews or leader on legs, with a good filler and good feet, with a good, kind disposition and good carriage and style, that will weigh not less than twenty-two hundred pounds, in fair breeding shape, and will breed to his herd of small mares and care for mares and colts properly he will produce a class of colts that will weigh from fifteen to nineteen hundred pounds. When broke and made fat the gelding will sell in any of the large cities for one hundred and seventy-five to two hundred dollars apiece. The mares will make fine mothers for mules and can be sold readily for that purpose to farmers in any of the mule producing states. As there are so many mares being bred to jacks and as the number of mares being bred to jacks continues to increase from year to year, a less number of mares are being raised and therefore there will soon be a shortage in the number of brood mares for all purposes. This especially is true if the stallion owners do not become better informed and more careful about the examination of mares before the natural service is made and thereby stamp out the curse known as "barren mare disease," the good horse and mule will soon be as scarce as the hog and beef cattle are and the government of these United States will be making an inquiry as to the cause.—J. C. Henderson, Freestone County, Texas.

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To the American Breeder: The marked success attending the introduction of Sudan grass into the United States and the limited supply of seed grown this year, due to the growers and dealers to ask unduly excessive drouth, has led certain seed high prices for the seed. The high value of this grass has been demonstrated by the splendid results secured this season.

While the supply is small, no one group of dealers has a monopoly on the seed of this grass. It has been quite widely distributed by the Department of Agriculture for two years and since it seeds freely, large quantities of seed will soon be obtainable at reasonable rates. The average farmer is not justified in paying $1 or $1.50 per pound for this seed, except for very small quantities to be used in growing his own supply of seed next year.—Weekly News Letter, Washington, D. C.

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Volume VII. *Kansas City, Missouri, May 20, 1914* *Number 9*

Percheron Stallion Show; See Pages 1, 5, 7, 11, 15 and 17



No. 30—(Iowa), Height, 69; Heart, 89; Bone, 11¾.



No. 46—(Oklahoma), Height 66; Heart, 86; Bone, 11.



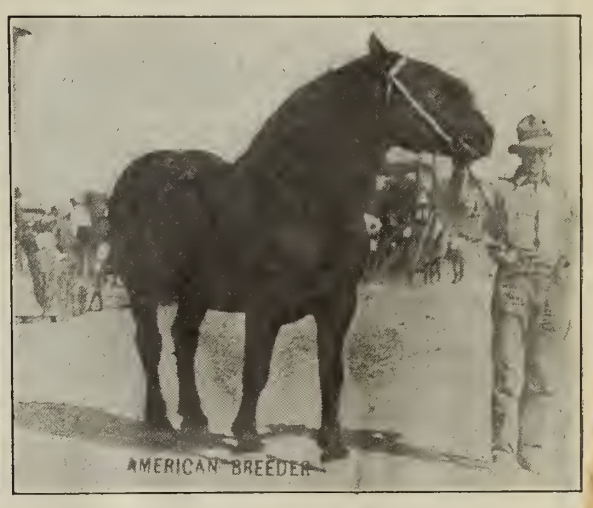
No. 15—(Minn.), Height, 67; Heart, 90; Bone, 12.



No. 8—(Wis.), Height, 67; Heart, 84; Bone, 11½.



No. 36—(Ohio), Height, 70; Heart, 96; Bone, 11.



No. 1—(Arizona), Height, 68; Heart, 90; Bone, 11½.



No. 21—(Wash.), Height, 65; Heart, 75; Bone, 11.



No. 24—(Kansas), Height, 69; Heart, 95; Bone, 10¾.



No. 29—(Colo.), Height, 65¾; Heart, 85; Bone, 11¼.

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THE KANSAS CITY IMPREGNATOR COMPANY

TWELFTH and CENTRAL STS., KANSAS CITY, MISSOURI

HE AMERICAN BREEDER

With which is combined
HE STALLION AND JACK NEWS.

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FINALLY HE REALIZED.

We are in receipt of a letter from e of our readers who states that he s purchased a stallion and in the nsaction has been seriously deuded. This individual has been ading the American Breeder for veral years. He is familiar with our ethod of doing business. Yet he rchased a stallion from a firm which s not been able to buy advertising ace in the American Breeder. He w asks us to help him "let go" of is stallion so as not to be seriously jured.

We have tried to make it plain in modest manner that there were sevral firms whose business we did not nt at any price. Nearly all of the sponsible men engaged in selling aft stallions, who advertise at all, ve been represented in the Amerin Breeder. We believe a good section could have been made from e barns of these individuals. We ink all of our regular advertisers derstand that their transactions ust be reasonable in order to conue to buy space in the American eeder. At least it is not our intenon to solicit business from men expting those we believe to be honable. Men who wish to patronize ose who cannot advertise in the nerican Breeder, have that privige.

This seems to be a case wherein an dividual is not interested in rightusness until he himself has suffered from unrighteousness. In other ords, seems to depend largely upon whose ox has been gored." There ay be a few others who have not lly appreciated some of the articles inted in this paper for the benefit honest men. A small fortune has been spent in fighting the crooks; a small army of permanent enemies have been made, yet all of this seem not to have awakened this individual. Since he, himself, has been skinned he is very anxious to get co-operation. We are of the opinion that his personal experience with one of the men we have warned our readers against, will make him a more careful reader and a "straighter" thinker.

PROFIT IN HORSE BREEDING.

The average mature stallion or jack cannot make more than nine services a week successfully for any length of time. At each service a lot of semen is wasted. The average stallion, by the latest and most modern methods, can average 15 mares a day bred and get a greater per cent of foals than can possibly be produced by the natural service. If a stallion makes his regular natural services and a part of the semen is taken from each mare and used in additional mares, is this not all profit? It has been difficult to get breeders to understand that this wasted semen could be turned into dollars. With a little study and preparation the average stallion can be made to much more than double his income over and above the regular natural services.

We are wondering how long it will take some breeders to realize this important fact. Thousands of men are successfully practicing this method. Occasionally a breeder makes the statement that his customers will not stand for anything new. Any breeder making such a statement should first study himself and wonder why his customers do not have more confidence in him or his ability. Has he been a failure in his other undertakings, or has he not treated his people on the square? One of those two questions should be considered closely.

The breeder who uses the capsule system on diseased mares cannot expect them all to get in foal. The breeder who uses the capsule system before the weather gets warm cannot expect to have good results.

Every breeder should hope to be able to adopt the capsule system some time. Our advice would be to all such men is to breed a few clean, healthy mares with capsules during the next few weeks, and have some capsule colts coming next spring. It requires only a few capsule colts to establish confidence in a community. Farmers want to see something and after they have seen a few colts they will not believe the misleading statements about them being deformed and inferior. Every breeder who expects to remain in the business should study this system and prepare to make some money. Every successful sire should produce more than one hundred living colts each season. Those that are not doing it are not being handled properly.

USING THE IMPREGNATOR.

There are some breeders who seldom have over two or three mares on hands at a time, or who for some other reason dislike making preparations for using capsules. When one extra mare is to be bred in addition to the one served, the semen may be transferred very successfully by using the right kind of an extractor, as an impregnator also. The service should be made on the cleanest and healthiest mare. Any one should be able to make the transfer of semen with the proper kind of an instrument. There should be very little difficulty about keeping the semen at the right temperature at this time of year. A Natural Temperature Semen Extractor can be sucked full of warm water at 100 degrees, then be used for making the transfer. It should, of course, be sucked full of boiling water a little while beforehand, in order to keep it clean and to destroy any spermatozoa left in it from a former service.

While using an "impregnator" is not as successful as the capsule system, it is better than nothing. When the temperature outside is between 95 and 101 degrees (without any artificial heat), the Extractor can be used without warm water. Practically every breeder will have a good number of mares that will not fertilize by the natural service. By this method the semen can be deposited in the uterus, which is all any stallion or jack can do. The instrument used must have a soft metallic point so that semen can be taken from the uterus, as this is the best place to get the fluid, and in many cases none can be found in the vagina.

WAITING FOR SOMETHING TO TURN UP.

To the American Breeder:—In reply to your Kansas subscriber in Rush County, Kans., will say I have a Percheron stallion registered, coming three this spring. Will sell for $400. He is a splendid individual and weighs about 1,400 pounds, with excellent breeding. A neighbor has a good jack that can be gotten right.—Pratt County, Kansas, subscriber.

The above letter, received about the first of May in response to a letter published in our issue of April 20, represents a class of inquiries which runs into the thousands each year, and to which personal replies cannot be made. The party who wrote this letter probably has seen in the American Breeder the advertisements of scores of other breeders located just as he is, with one or two animals to sell. In the same issue he could find the statements of many other breeders reporting the sales of animals made through just such advertising. We will never be able to understand why under these conditions a man will continue the expense of feeding and caring for an animal which he wishes to sell, knowing that each day the opportunities for selling are becoming fewer, and hang back about spending a little money advertising.

No one is absolutely sure of making a sale as the result of placing an advertisement even in the best papers, but if one advertises a desirable animal, and is willing to take what the animal is worth, the chances are he will sell. Hundreds of sales are made in this way every year through the American Breeder. It costs only $5.00 to run a one-inch ad one month in the best part of the season, and in dozens of cases each year just such inexpensive advertisements find buyers for the stallions or jacks that are offered. How much better it would have been for this man had he chosen early in the season to try this modern way of bringing buyer and seller together, than it was to wait as he did until the season was nearly over, with a certainty that his feed bill every month would be in excess of any possible advertising expense, and then finally, as a last chance, try to get in on what probably is one of the season's last inquiries for breeding stock.

So far as the American Breeder itself is concerned we would have been glad to furnish this subscriber the address of the subscriber in Rush County, Kansas, who wrote us that a stallion and jack were needed there, although this is contrary to the custom of the American Breeder and of all other reliable publications. However, it is plainly unjust to a paper's advertisers, and it clearly would be impractical because any paper with large circulation would soon be flooded with similar requests if it once became known that such a service could be had for nothing. It was, in this case, impossible to determine the name of the Kansas subscriber, as his letter had been destroyed along with dozens of others, after being copied for use in making up the issue of the paper in which it appeared.

We do not ask any subscriber to use our advertising columns unless he feels like it. We try to make the price of our advertising reasonable and we try to make it profitable to those who take advantage of it. Timely advertising not only saves, as a rule, more than enough feed to balance its cost, but it brings the better class of buyers. A little ad in the paper at the time the Rush County man made his inquiry, would have reached, not only him, but doubtless many others just as likely to prove buyers.

CO-OPERATION VS. OPPOSITION.

Wars have been fought with honest men on both sides, because different people, looking at the same proposition, saw it in different lights. If both sides had possessed full knowledge in the matter, so that they could see aright, there would have been no dispute.

In every community there occur disagreements which would not occur if the parties to them were more fully informed. Any intelligent man who carefully considers the question will say that in the long run the real interests of the people of one section are very much the same, because the things which do the most good generally are the best for every member of that community.

When a member of any community fails to recognize this truth it is either because his selfish interest prevents, or he lacks education. Edueation (in the sense that it means training and information to enable its owner to see things exactly as they are) is the greatest peacemaker and prosperity maker in the world. This does not mean college education, or any other one class of education, alone, but the education in which experience, observation, schools, papers, books and an honest heart, all co-operte to make a man "see straight."

Now, in making this preliminary statement we are aiming at a point, and it is not Mexico, either. We have printed several letters (and received a great many we did not print) asking why we ever reduced the price of so good a paper to three years for $1, or why anyone should want a rate of 25 cents for a trial nine months' subscription (omitting the three summer months).

Both these rates were made to help the breeder secure the subscriptions of his customers and neighbors. Every one of our readers who has tried this plan and got a lot of American Breeder subscribers in his territory has found that it helped his business immensely. His neighbors and patrons, as well as possible patrons, were learning the things he knew, many of which they could not get from any other paper or book, and this knowledge changed many of them from doubting (and sometimes "knocking") to active help and co-operation. This is not theory; it is fact. Hundreds of our readers have written us on this very point.

The nine month rate of 25 cents is not good after the end of this month (June 1 is the limit), but the $1 for three years will still be good.

NECESSITY OF USING A SPECULUM.

Two of our readers have had an argument concerning the use of a speculum and the kind of a speculum. One of them insists that it is not necessary to use a speculum in the examination of mares. The other insists that a glass speculum should be the kind used.

No breeder can make a complete examination without a speculum. A breeder cannot spend a little money to a better advantage than by purchasing the right kind of a speculum. Those who have made examinations only with the hand are breeding in the dark. A glass speculum has very little value because it is apt to be too short and too thick to give the desired results. They are usually easily broken and a little nick may be made in one of them and not be

noticed. In this case a serious injury might be done.

The proper kind of a speculum is about 15 inches long, made out of copper, with a special polish both inside and out. With an instrument of this kind the light can be reflected into the mare so as to give a good view of the interior. Such a speculum is easily inserted by putting the hand in the vagina and then pulling it out far enough to get the point of the speculum in the palm of the hand. With a gradual twist the point may be inserted while the hand is withdrawn. It has been fully proven that every breeder should study the insides of the mares he has to deal with.

TESTING SIRES.

The writer recently has made numerous microscope tests of valuable stallions and jacks which have failed to settle their females. While this plan is comparatively new, the use of the microscope test has come into national prominence since it was first advocated in this paper. Only a small per cent of the breeders yet realize the value of testing the semen. Hundreds and hundreds of breeders have wasted their money because they did not know how to test a sire.

One breeder owning nearly 40 head of pure bred mares has recently seen the "light of day." He had a valuable stallion which had been exceedingly sure during several years' use. He never even suspected that it would ever be necessary for him to test the semen of this stallion. The unexpected has happened, and as a result of omitting this precaution he will lose a crop of colts which would mean a small fortune to the average man. A microscope would have given him an insight into his trouble in plenty of time. At another place visited practically the same condition has developed with one of the best jacks, individually, in the country—a herd header—has failed to produce offsprings when mated with a large herd of good jennets. These losses would not have been so severe had they been distributed over the country at the rate of only one or two females for each separate farm. When a large herd of matrons fail to produce colts, representing a probable value of from $200 to $500 each at weaning time, some one feels the loss.

At another place visited a flock of excellent sheep had been selected with great care. It was noticed during the last season that the ewes were not settling very satisfactorily, but from all indications later on they seemed to settle a little better. The result of that experience is that not one of those ewes produced a lamb this year. A microscope would have located the trouble (the first step always in finding a remedy) in a very short time.

Bulls and boars have been examined also. If the breeders of this country could have seen what the writer has seen on this subject during just the last few weeks, they would better estimate the value of a good microscope, and take more stock in improved methods generally.

Those who are standing stallions and jacks for public service can always answer one question quickly, and that is whether the sire is a producer or not. If all of the spermatozoa discharged are active and showed marked movement (power to travel), the mare owner who breeds a mare which is not in a condition to settle can be made to understand quickly that it is not the fault of the stallion or jack. The best advertisement on any breeder's farm is a microscope. Hundreds and hundreds of farmers will be only too glad to go to the breeding barn to see the "wiggle tails" through that microscope. They can actually see something. Then other problems can be explained more easily. It is not necessary to keep a stallion for one or more years to know whether it is a producer or not.

RANK SERVING STALLIONS.

Numerous complaints have been made this spring concerning stallions which could not complete their services. A stallion may mount and make the entrance but fail to discharge. Within a few seconds the stallion may be ready and repeat the performance with the same results.

The first thing to do with a stallion of this kind is to put a secret day and night watch on him for 48 hours to see whether he is masturbating or not. Some stallions are very cunning about this habit; they may not attempt it until about midnight. A few stallions will do this at any time or place, while others will not do it when they know they are being watched.

If a stallion is not masturbating perhaps the best remedy is to administer the hot water treatment which consists of leading him out where a mare can be seen so that he will get an erection. Have a vessel large enough so that the penis can be immersed. The water to begin with should be about body temperature or a little warmer; have a vessel of hot water so that a little can be poured in gradually and increase the temperature. Be careful not to get any of the water too warm on the penis, but gradually increase the temperature until it is as hot as the penis will stand it. This treatment should be carried on for a few minutes at least twice a day. The stallion should not be allowed to tease any mares or at any other time be where he could see or smell any mares. The barn should be kept quiet. Exercise should consist of being led slowly, about the usual distance with which he is familiar, gradually increasing it each day. The grain ration should be gradually diminished until this difficulty is over.

After three or four days' rest without any services, the stallion should be taken out for his regular exercise and when brought in hay should be sprinkled under him so as to get him to urinate. A tall mare which has had one or more foals, and one that is in good heat, should be tried by another stallion and be prepared for the service. The mare should be placed close by the stable door so that when the bridle is put on the stallion he can make the mount before the erection gets very severe. If the stallion is afraid of the bridle, a milder bit should be used. During the service let the mare take a few steps so as to hurry the stallion up giving him an opportunity to put all of his muscles into action. If the mare does not move it would be advisable to lead her a few steps during this service, stand back a little and let the stallion make a natural service. If he fails at this time put him in the barn, take the bridle off, close the door, let him assume a natural condition and repeat the performance once more. If not satisfactory he should be retired for two or three days more while the hot water treatment is being administered.

Occasionally a stallion will fail to make a complete service on a mare having a very short vagina. This is more especially true where the penis is very long or thick. This condition can be remedied by selecting a taller and larger mare. Occasionally a stallion not having had a service for some time, may have a little difficulty that may be overcome by putting the stallion in the barn and waiting until everything is perfectly normal and then trying a second service. In all cases, however, the stallion should urinate before an attempt is made. A service of this kind should not be made soon after being fed grain. If a stallion can have a mile or two of slow, quiet exercise just before the service it is usually an advantage. Those men who use harsh language and rough treatment with stallions are generally liable to have more trouble with these services than others.

Every stallion should be taught to advance within a few feet of a mare and stop absolutely still and then allowed to mount only after receiving a regular signal, which all caretakers should be careful about using, so the stallion will understand that particular signal. Stallions making the advance on the hind feet, with an abundance of noise, frighten many mares to the extent that they do not perform their regular functions during an act of service.

DOWN ON THE "FIRING LINE."

To the American Breeder:—Please find enclosed $1.00 for the American Breeder to be sent to H. E. Bowman, Jr., Gen. Del., El Paso, Texas. We have everything now in readiness to serve the public and our own herd, according to the most practical, systematic and scientific methods. An inspection of our plant is invited, and we shall feel highly honored to receive you personally, and let us insist upon a call real soon.—Sam A. Leath, Loma Tiva Ranch, El Paso County, Texas.

A Poster No One Will Forget

Soon a thousand of our readers, who are acting as subscription representatives for the American Breeder, will have received the educational posters they asked for some time ago. We had requests enough in this office before the ink was dry on the posters to take the entire first edition. We believe the plan, as a means of co-operating with our subscription agents, is going to be a great success, but as the expense of this first item will run into hundreds of dollars, we again ask our representatives to take pains in putting these posters up securely, where they will stay and be seen by as many busy, intelligent, interested people as possible.

Directions for putting up the posters, with gummed paper for convenience in fastening them to papered walls, are included in every roll of posters sent out. In order to make our second edition go as far as possible, we ask the privilege of reducing the number of posters sent on a request to three or four, unless the representative intends to put them up in several towns. We are also leaving blank the space for agent's name, as filling these in causes some delay. Most breeders can clip from their own advertisements and paste on in the space provided their names and addresses printed in larger type than it is convenient for us to use.

Posters will be sent free of charge promptly on all requests as long as this offer stands. In taking subscriptions remember that the special nine-months' rate (one year less the three summer months) expires the last day of this month. The rate of three years for $1 is getting us more subscriptions than we ever got before at this time of year and is the one to push. **Let us help you to help get more subscribers for the American Breeder to make conditions better for your business.**

The posters are printed on heavy, high quality, plate-finish paper, about 22x32 inches, and beside the reading matter carry pictures of nearly 100 animals each.

Partially Personal

The Kansas Industrialist says: "Some people always act disappointed when the unexpected fails to happen."

Chas. A. Nash who has been assistant secretary of the Iowa State Fair, has been elected secretary of the North Dakota State Fair.

Rufus Jackson publisher of the Missouri Stockman and one of the leading figures in Missouri saddle horse affairs, has been appointed postmaster at his home city, Mexico, Mo.

Dr. Robert K. Nabours, professor of zoology and an expert animal breeder in the Kansas State Agricultural College, has stated on his investigation of the Karakule sheep raising industry in Turkestan.

The Chinese system of health preservation certainly is an improvement over our own. The families that can afford physicians, put their doctors on a salary, to keep them well. If anybody gets sick they dock the "Dock."

In Missouri are circulated several creditable farm papers. Two or three of these admit being "Missouri's only farm paper." Missouri is too big and too intelligent for such a statement as this to be put over, and the patriotism of the paper making it may well be questioned.

Chas. Irvine, one of Iowas leading breeders of Belgian Draft horses, was a prominent buyer recently in the Miller sale of Polled Durham cattle, at which a World's record was made.

N. H. Gentry of Missouri has refused the job of cattle judging at the national exposition to be held at Havana, Cuba. Mr. Gentry knows what a live stock judge gets into, even in the temperate zone, and is not taking any chances on torrid zone temperaments.

Hayes Walker, publisher of the Hereford Journal, has done one of the best things that ever happened in the literature of pedigreed farm animals by getting out an "album," of Hereford prize winners. Besides giving photographs of the 1913 champions the album gives the Hereford winners in the leading national shows of their country, since these shows began.

The State Department has declared the killing of Private Parks and the robbery and imprisonment of Consul Silliman, by the Mexicans, to be "unfriendly acts." There is such a thing as being too "touchy," of course.

Caruso's latest wife has written a story telling how the famous tenor "won" her. Possibly it was because he couldn't outrun her.

Have you missed any live stock lately? "There's a Reason." Since 1910 the decrease in the number of farm animals "per capita" has been as follows: beef cattle, .09 head; dairy cattle .05 head; sheep, .07 head; hogs .03 head; horses, .04 head and mules .1 head.

"A farmer near Robinson, Kas.," narrates the Mail and Breeze, "recently purchased a mule near Higginsville, Mo, for $800. This animal is to be the mate of a mule he recently bought for $900." The Story does not give the locality from near which the $900 mule was bought, but evidently the altitude there, as well as near Higgingsville, is favorable for seeing them coming.

Last winter we gave some of the facts concerning the operations of an Illinois live stock trader who was charged with selling tubercular dairy cattle showing fake tubercular test records. Recently in the Federal Court, setting at Topeka Kas., a Nebraska stockman got a heavy judgment against an eastern trader who had shipped him Holstein cattle, including animals from the man whose fraudulent methods has been exposed.

Diasnosing Ills of Horses

LESSON IV.

Evidences of Pain As Indicators of Disease and the Nature Thereof

Pain very frequently accompanies disease.

The higher nervous organism of man causes that individual to betray pain more frequently than animals. The mental state of man often becomes overwrought so that the element of pain becomes magnified. It would be ridiculous to say that there is no such thing as pain, yet a strong will power serves to keep it in subjection. Horses perhaps more truly reflect the actual suffering than almost any other animal and yet it is interesting to note the different ways in which certain animals will express pain, showing that there is a range of feeling governed by the state of mentality in horses.

One animal will flinch and be unsteady under the influence of a collar abrasion or other wound while another animal will give even a larger wound no heed at all. Horses are great victims of habit and in some animals it may be noted that long after a wound has perfectly healed the animal will be suspicious of every move of man. Some animals reach a point in habit formation that they become vicious and even positively dangerous.

We have no way of measuring the pain a horse suffers only by the symptoms. Our diagnosis is based on objective symptoms. We infer that he is in pain by what he does—how he acts. In man we have the advantage of weighing the subjective symptoms, but subjective symptoms may be unreliable and misleading. They, too, frequently are colored by what the individual himself thinks is his ailment. A horse in a sense makes use of a hidden or sign language which, if we can interpret, is not misleading. He does not complain unless he is in distress and the foundation for that distress is frequently something serious.

Toothache in Horse and Man.

For instance it requires pretty close observation to detect when a horse has the toothache and yet the human race can testify that it is a very painful experience. The horse toils on until the nerve of the tooth undergoes destruction, through the inflammatory process and often never gives a sign of his suffering.

It will be noted that in horses disease is ordinarily a shorter process than in man. A horse does not complain until he is positively sick so that the trivial ailments complained of by man are not noticed. If given opportunity the horse has wonderful recuperative power, as for instance, he will suffer the most excruciating agony from an attack of indigestion during the night and will be in condition the next morning so that the average owner will want to put him into the harness. Again a horse will have an attack of pneumonia and be so sick that it seems impossible for him to live and yet be practically over it in a couple of weeks. In other words the disease has subsided to that point wherein all that is needed is a short period of rest for the animal to build up and regain its strength.

On the other hand if a disease results fatally in a horse it is not long in doing it. A horse may die in a few minutes or a few hours from an attack of acute indigestion which is an unusual experience in man.

To Detect Pain.

A horse betrays pain in several ways. If the condition is one of external injury or inflammation the symptoms are best noted during movement of the animal. During movement the afflicted parts are handled in a stiff manner, governed largely by the degree the wound interferes with the proper movement of the limb. In some cases it amounts to positive lameness. Injuries about the joints necessarily cause a greater inconvenience during locomotion than when located on other parts. Inflammation of muscular structure may be extensive and cause great swelling and yet cause but little inconvenience when the animal is moved. To all appearances the animal does not suffer any great pain.

On the other hand an injury to a joint, an open capsule or inflammed synovial structure gives rise to the most intense suffering. We infer that such is the case by the loss of appetite, the rapid decline in flesh and the restlessness while standing, the affected member being kept in almost constant motion. It is difficult to conceive of a disease that gives rise to more acute, prolonged, grinding pain than open joints. An owner does not often appreciate the seriousness of such injuries for the reason that the wound itself is usually small. Open joints are diagnosed in part from the above noted symptoms along with the character of the discharge from the wound. The discharge is continuous, of an oily nature and inclined to coagulate around the wound margin. A small wound communicating with a joint does not often give rise to much pain for a few days after the injury. The inflammatory process seem necessary to bring on this condition. Very frequently horses that have received wounds that open articulations are worked by thoughtless owners, because the wound appeared trivial.

Refusing to Lie Down.

External injuries or localized inflammation frequently deter a horse from lying down. Sometimes the injury makes it positively difficult for the horse to recline but it must be remembered that the horse is a suspicious animal and will take no chances in lying down if he suspects there will be difficulty in getting up again.

Persistent standing is quite characteristic of the horse, and even with the approach of death this animal will maintain a standing position just as long as possible. When an animal suffers from some painful state existing in the limbs it will attempt to assume a position so as to ease the part. A horse with a strained back tendon will stand with the limb flexed at the knee. Injuries in the feet often cause the shoe or hoof to be worn unevenly. An expert shoer can tell much by way of disease or conformation by looking at the shoe the horse has worn. If the wear is uneven on a shoe that has been properly applied, it is evident that there is some defect beneath the unworn part that is responsible for it.

Signs of Laminitis.

Laminitis or inflammation of the sensitive parts of a horse's foot gives rise to intense pain. The imprisoned, inflammed sensitive tissue cannot swell and thus give relief for the reason that it is surrounded by a hard unyielding wall of horn. The pressure on the nerve endings causes excruciating agony.

If the inflammation is restricted to the interior limbs the animal takes a position so as to carry as little weight as possible on the fore limbs. Naturally he places the fore limbs as far forward as possible and brings the hind limbs well under the body which position gives the greatest relief to the affected members. At the same time this position places the weight on the heels of the affected feet, removing it from those parts that are connected with the inflammed area. The movement of a horse with laminitis is very choppy, the limb being kept off the ground as short a time as possible. Movement promotes the circulation in the inflammed parts and temporary relief is usually seen in moving an affected animal a short distance.

Rheumatism Affects More Jacks and Mules.

Rheumatism is usually a painful disorder and many times fails to give rise to heat or swelling of the parts. Horses have rheumatism infrequently, but jacks and mules are often victims of the disease. Its shifting tendency with absence of heat, swelling and failure to find a sensitive spot helps to identify this disease. Its painful character often causes the animal to keep the affected limb swinging in the air.

Abscesses give rise to great local sensitiveness and when near the surface causes sufficient swelling to help in diagnosing them. A point that aids in distinguishing an abscess from a tumor is the rather prompt development of the former. Abscesses many times develop in a few days while tumors usually require weeks and months to attain size. Fractures of bone are necessarily painful but when the broken ends of bone can be held in a position relief is quite prompt.

The points that aid in detecting fractures is sudden lameness and as a rule inability to support the weight on the broken limb, great pain when moved and often times grating sounds may be heard on manipulating the fractured limb.

Many internal diseases give rise to sufficient pain that it may be detected. Sometimes it requires a change of position to bring out the painful symptoms.

In Acute Pleurisy.

A horse affected with acute pleurisy will frequently groan if moved, especially if turned sharply. In pleurisy the trunk of the body is carried in a stiff, rigid manner when the animal is moved; the muscles between the ribs are fixed and a depressed line appears along the lower margin of the ribs.

The animal refrains from making use of the rib muscles in breathing, giving the body a fixed appearance. The breathing is termed abdominal the movement being in the region of the flanks. A horse affected with pleurisy remains in the standing position as a rule throughout the course of the disease, for to lie down would only add to the pain. If an animal succumbs to the disease it may be said that they practically die on their feet.

A pure pneumonia or inflammation of the lungs does not give rise to pain so far as can be observed directly. The distress occasioned is more through interference with proper breathing. Inflammation of the bronchial tubes, however, especially the smaller tubes appear to give rise to marked distress.

The distress to laryngitis is largely that of interference with proper breathing.

Kidney Trouble Indicated.

Inflammation of the kidneys occasions marked pain as evidenced by the stiff continuous movement and restlessness of the animal. Bladder disturbances cause sufficient irritation to provoke frequent urination. Liver diseases apparently cause some pain for the reason that an affected animal is disinclined to move. Pain is a factor in diagnosis and the location of the inflammed area is not usually difficult when located at such external points that it may be observed and manipulated with the hands. When arising from some disturbed internal organ its detection becomes more difficult and other symptoms must be taken into consideration.

The Mature Percheron Stallion Show

Pages 1, 7, 11, 15 and 17.

In this issue (see pages named above) we print pictures of the Mature Percheron entries in the American Breeder Stallion Show. Under each picture is printed the stallion's entry number, the owner's state and the required three measurements, in inches. Many more entries to this show were received, but in a number of cases the pictures sent were not suitable for making cuts, and in a few others the entries did not quite make certain the animal's standing as a Percheron. We still have 19 states represented, ranging from Pennsylvania in the East, to Arizona in the West. The plan for awarding places will be announced in our next issue. This is the fourth of these "shows" held through the columns of the American Breeder, and the interest has been growing constantly.

AMERICAN BREEDER IMPROVED HIS BUSINESS.

To the American Breeder:—Although I have been a stock breeder for years, I have been reading your paper for only about 14 months, and recognize the fact that I have missed much by not having read it since its beginning. I liked its theories advanced, most of which have been proven in practice by old, experienced and progressive breeders, so that I had the mare owners' editions sent to my customers, and I believe through that medium my business has been increased I like the American Breeder from a breeder's standpoint and I like the editorials from a citizen's standpoint on account of their clean morals expressed. One of them especially, in April 20th issue, under the heading of "Booze Business Is Doomed." We live in prohibition Oklahoma, and we know the good the cutting out by law of the booze business has, and is doing, and we want to impress upon you our appreciation of the stand you are taking against the booze business—a stand that is an educational feature through your circulation, the influence for good of which cannot be estimated. Good luck and prosperity to the American Breeder.—E. M. Stringer, Kiowa County, Okla.

BUYS A BINDER; SAVES HIS PAPERS.

To the American Breeder:—Herewith enclosed please find $1.00 for which I wish to receive one of your American Breeder binders. I have more than a year's papers saved up and find it inconvenient to pick out the paper I want when referring back. Your paper has been a great help to us, and we would not be without it for many times its price. We are breeders of mules and horses, on the range, and have a great deal of room to improve our stock. We have two jacks and three stallions, including one Percheron, and a Standard trotter, all of which we use privately. We do no public breeding as we have all we can attend to. We have been thinking very strongly of adopting the capsule system.

Thanks very much for an article in April 5th issue; we have needed the treatment for some time.—B. J. Bonnell, foreman for Frank B. Coe, Lincoln County, New Mexico.

Questions and Answers

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

Sign Your Name and Address to all Questions.

1035—UNTHRIFTY MARE—I have a mare here that is not doing right and would like to have some information as to what could be done for her. She is only six years old. Worked her last season. She has been thin all winter and was with foal. She foaled the 26th of March, and has a fine Percheron colt. It is fat and slick. Her hair is rough and dry on her; had a veterinarian fix up her teeth this winter; have fed her alfalfa all winter and eight quarts of oats with it, and straw besides. Since she has had her colt I have been feeding her bran with oats and hay, but she don't seem to pick up. Her manure smells stronger than manure ought to smell; it has a sour smell. She has an awful appetite. She is a mare that will weigh 1,700; a well bred Percheron. Would like to hear of a remedy that will make her pick up in flesh.—North Dakota Subscriber.

REPLY.—The mare is quite likely a heavy milker judging from what you say concerning the condition of the colt, and it is not likely that you will be able to put very much flesh on her if you work her much while she is suckling the colt. You will find in addition to the grain rations already being given that old process oil meal is excellent to promote thrift. Start with a small amount and gradually increase to half a pint in each feed. Permit her to have access to grass. In addition a course of Fowlers solution will aid in building her up and three-fourths of an ounce may be mixed with the feed three times daily. Carefully observe for internal parasites (worms) and report if any are noted, giving description of the appearance of the same.

1036—PARROT MOUTH—Will you please give your ideas of an imported horse whose teeth do not fit correctly; upper teeth extend over some. The first season he produced one colt whose teeth do not meet at all and several with upper teeth extending over. Will the permanent teeth come in better or worse?—Illinois Subscriber.

REPLY.—From your description we would judge that your horse is inclined to be parrot mouthed and that he has the power of transmitting this undesirable point to his offspring. We see no hope for improvement when the colts get their permanent teeth.

1037—BLIND FROM HEMORRHAGE—I have a two-year-old horse that I castrated some ten days ago and turned him out. The next evening I found that he had bled very nearly to death. After putting him in the lot he went blind. He is doing very well except that he is still blind. There is no scum on eyes, but the pupil seems dilated. Can I do anything for him that will cause him to regain his sight?—Texas Subscriber.

REPLY.—It is quite likely this animal will never regain its sight inasmuch as the blindness is due to paralysis of the optic nerve, those nerves of special sense of seeing.

1038—CALF KNEED—What is the cause of young jacks being inclined to be calf kneed or knees to turn in? What is the best to do for them?—Missouri Subscriber.

REPLY.—Such undesirable conformation is a matter of hereditary transmission which breeders thus far seemingly have not been able to overcome. More care in breeding is the proper solution of this problem.

1039—SWOLLEN NAVEL—We have a male calf about two months old that has a large swelling on the navel. Would it be a good plan to castrate this calf before the swelling goes to the testicles?—Kansas Subscriber.

REPLY.—Your description is not sufficiently clear to enable us to determine whether or not the swelling is due to a hernia or an infection of the parts. We presume the latter is the condition. At any rate there is little danger from any cause of the trouble extending to the scrotum. If the animal is infected it would be wrong to do anything in the way of castration during such infection. Have your veterinarian examine and treat the local condition and the matter of castration may be attended to later.

1040—SUBSCRIPTION RATE—I see by the American Breeder that the subscription price is $1 for three years. How long will that rate be in force?—Kansas Subscriber.

REPLY—The rate of $1.00 for three years, published on our front page, may be allowed to stand indefinitely if we continue to get sufficient cooperation from our subscribers to justify us in making so low a price.

1041—WANTS JERSY BULL REGISTERED—I have a pedigree bull. He is a Jersey, No. 269, and I would like to know if I can have him registered. I purchased him from C. E. Tesson, St. Louis County, Mo.—Missouri Subscriber.

REPLY—The number you give for your Jersey bull is probably the private herd number of the party from whom you got the bull. He doubtless can tell you whether or not the bull can be registered, and if he bred the bull he is the one in best position to help you get it put on record. If you cannot in this way conveniently secure the information you want, write to R. M. Gow, secretary, American Jersey Cattle Club, 324 West Twenty-third Street, New York City, giving him the date of calving of this bull and the name and record number of both sire and dam, or as much of this information as you can furnish.

1042—REGISTERING HORSES—Can anyone register a colt from a Standard bred horse and a heavy mare, say a Hambletonian horse and either French or German Coach mare, both horse and dam being registered?—Texas Subscriber.

REPLY—No.

1043—RECORDING COLT—I have a customer that raised a colt from a pure bred Percheron mare and my pure bred French draft stallion. Can this colt be recorded as pure bred? If so, in which book?—Iowa Subscriber.

REPLY—French Draft. Write C. E. Stubbs, Fairfield, Iowa, Secretary of the French Draft Stud Book.

1044—SALINE SOLUTION—In your April 5th issue an article on page 3, third column, says to use the saline solution at 110 degrees but don't state how much of the saline to use or how much water to use.—Nebraska Subscriber.

REPLY—If you will carefully read the article referred to in the third column, beginning with the fourth line, you will find the following sentence: "The saline solution is made by putting in a teaspoon level full of good salt for a pint of sterilized water, and boiling together." In the first column, fourth paragraph, you will find the following sentence: "A gallon of fluid should be prepared at the proper temperature for each case." If you will take a little time to study that article over carefully you will find your questions thoroughly answered.

1045—LAME HORSE—I have a large, three-year-old horse that has been broke to work and has been worked moderately, and he now has a second attack of lameness. I have had one horseman to examine him and he agrees with me that the trouble is in his left hip and stifle joint. But there is no swelling and the cap of his stifle joint appears to be all right. He is also able to move that leg forward and stand with it in front of the other leg. Can this be an attack of rheumatism, and what can I do for him?—Illinois Subscriber.

REPLY—Your description is too indefinite to enable us to form an opinion as to the location of the lameness in your animal. It could be rheumatism as suggested, however. A diagnosis is in order before beginning treatment and you should take your horse to a well qualified veterinarian in order that a careful examination may be made before undertaking to prescribe for the case.

1046—STALLION REFUSES MARES—I have seen mares that were in heat that stallion would not touch; go and smell them and go away from them. I thought the mares diseased.—Nebraska Subscriber.

REPLY—Occasionally a stallion will refuse to serve a diseased mare. It would be a good thing for the live stock industry if more stallions were this way. When a stallion refuses to serve a dry mare a careful examination is in order. Occasionally a stallion will refuse to serve a mare with a colt by her side. Horses have peculiar notions. Each individual must be studied carefully. In the case of diseased mares the breeder should be the one to decide when a mare should not be bred; that is, he should be qualified to make such examinations accurately.

1047—BLINDNESS IN COLTS—In 14 years in keeping two or more stallions have known three young colts to go blind. One was out of a mare blind in one eye, another weak in both eyes, and the next mare had excellent eyes. All the sires had fine, large hazel eyes. These colts went clear blind by six months of age. Please give cause of blindness.—Ohio Subscriber.

REPLY—The cause of the blindness in the several cases mentioned may not have been always the same. However, you have hinted at the cause in two of the cases. We must not expect to bar the transmission of weak points in the parents on either side to the offspring and further we must remember that the dam is always a factor to be reckoned with in breeding. Too frequently people are inclined to give all the credit or all the blame as the case may be to the sire. Progeny often have defects that never appeared in sire or dam but a careful search of the condition of the ancestry often discloses a weak member from whence the weakness descended. There are diseases of the eye as well as other organs that are contracted after birth and if such are repeated they become a weakness in that individual to that point wherein they may be transmitted.

1048—A DISEASED MARE—I wish you would tell me what the trouble is with one of my best mares. She is about nine years old and is a very well put up Shire mare. She comes in heat regularly and stays in heat about a week. When in heat she seems very irritable, as she switches her tail and often kicks when the harness rubs on the crup. She discharges often when in heat and the discharge is of a rather thick, whitish nature.—Virginia Subscriber.

REPLY—Use the iodine treatment on this mare; about three weeks later use the saline solution, and a week later repeat the saline solution. If she has cleaned up, breed her. If she does not settle after one or two trials get a good surgeon to examine the ovaries. It may be necessary to remove one ovary before she ceases kicking and showing a bad general disposition. A mistake is frequently made during this spaying process. Ordinarily the ovary having the largest cysts is removed. In a condition of this kind it is not the cysts that cause the bad disposition. During the past year or two we have discovered that these kicking mares have a large red spot or a blood clot on one ovary. If this ovary is removed the mare will usually lose that ill-tempered disposition. A good surgeon should have little difficulty in performing such an operation, but it is not advisable to entrust such cases to the average individual as mares are very susceptible to infection.

1049—LAME MARE—I have a mare that is lame in front feet. Can take knife and dig bottom of foot out; is very brittle and smells badly. What is the trouble and what can be done for her?—Kansas Subscriber.

REPLY—Your description sounds very much like one of chronic laminitis with bulging of the sole. Soak the feet in warm water to which has been added a tablespoon full of creolin to one gallon of the liquid. Permit the feet to be soaked for six or eight hours a day for two or three days or until the lameness improves. At this time heat pine tar quite warm and pour into the places that were separating. Do this twice a day. At the same time mix a little of the tar with some vaseline and thoroughly annoint the entire hoof surface once or twice daily. This latter is to prevent the feet drying out, which is important.

1050—NO SUCH BREED—Is there any such stock or breed of horses as the "Smoker," and if so, what kind of a horse are they?—Illinois Subscriber.

REPLY—We have never heard of a breed or a single animal called a "Smoker."

1051—STRICTURE IN VAGINA—I have a large, valuable imported Percheron mare coming four years old. The colt came wrong and had to be taken from her. She had a bad case of laminitis immediately after, also leukorrhea. Both of which I cured up in good shape. She is not in foal this spring and the hymen seems to be grown in front of the os uteri so that I cannot break through it. I can feel what feels like the os uteri beyond it. What would you advise me to do in this case, break the hymen?—Kansas Subscriber.

REPLY—It is evident that a stricture resulted from the previous trouble and you will need a good veterinarian to look after the condition now present.

1052—TESTING SEMEN—What is the trouble with a stallion when at times the semen tests fine, plenty of live spermatozoa, and then for several times it tests poor, plenty of spermatozoa but most all of them dead. Is it masturbation, or if masturbation would the spermatozoa be absent?—Iowa Subscriber.

REPLY—It would be advisable to watch this stallion for masturbation. You may have been using your stallion too much as a teaser, or perhaps his general condition is not up to the standard. Each individual sire should be studied separately. By making a daily test and taking the customers into your confidence there should be very little use in sending a mare away from the barn unless she had received all that a fertile sire can deliver. When the spermatozoa do not show plenty of motion and movement there

(Continued on Page 10.)

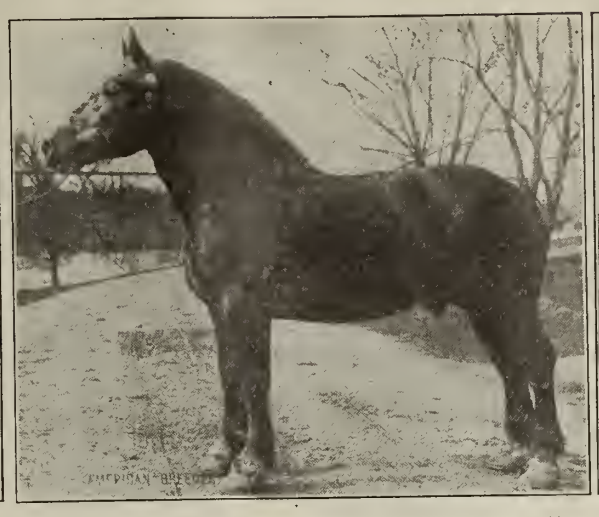
SIGN YOUR NAME TO QUESTIONS.

Frequently in our Question and Answer department, we have inquiries of a confidential nature to answer, and for that reason have adopted the plan of giving the subscriber's state, but not his name. This enables any reader to know what locality and climate the question and answer apply to—which often is important. For our own information, however, we must have the name and address of every inquirer, signed to his question. Where names and addresses are not given, or we have any reason to doubt that the question is asked in good faith, and by a paid-up subscriber, it may go to the waste basket. No department of the paper receives more expense, hard work or careful attention than this, and it is not too much to ask that all subscribers read the explanatory heading on this page and observe its requests.

Percheron Stallion Show; Pages 1, 5, 7, 11, 15 and 17



No. 17—(Illinois), Height, 66; Heart, 86; Bone, 11.



No. 59—(Ind.), Height, 72; Heart, 91; Bone, 12½.



No. 27—(Nebr.), Height, 66; Heart, 84; Bone, 11½.



No. 26—(Ill.), Height, 70½; Heart, 97½; Bone, 11½.



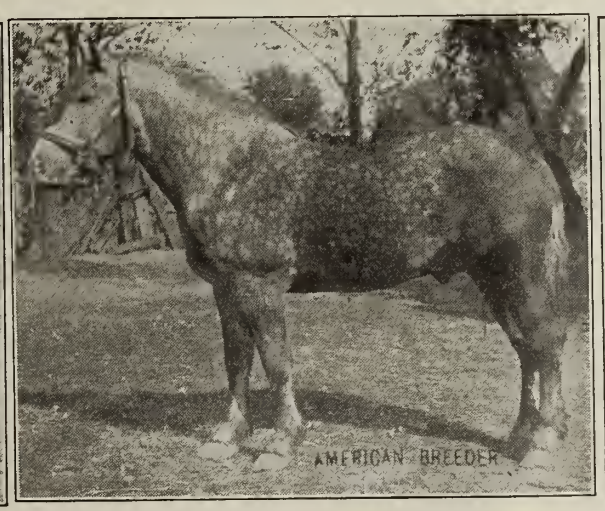
No. 19—(Kans.), Height, 70; Heart, 96; Bone, 11.



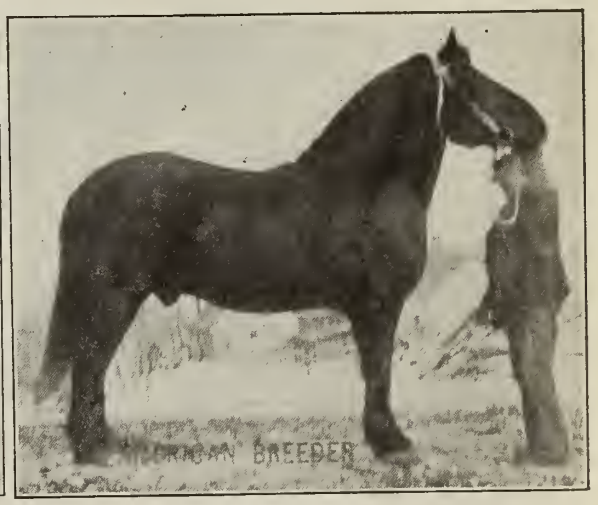
No. 7—(S. Dak.), Height, 68; Heart, 92; Bone, 11.



No. 45—(Iowa), Height, 71; Heart, 89; Bone, 10½.



No. 18—(Illinois), Height, 68; Heart, 90; Bone, 10½.



No. 10—(N. Dak.), Height, 70; Heart, 92½; Bone, 11½.



No. 62—(Nebr.), Height, 73¼; Heart, 93¼; Bone, 12.



No. 32—(Kans.), Height, 70; Heart, 91; Bone 11½.



No. 40—(Minn.), Height, 68; Heart, 87; Bone, 11½.

Live Stock, Hay and Grain Market Review

Trade in horses is holding up much better than usual for this season of the year and prices have ruled firm. It was expected that rising temperatures would begin to usher in summer dullness, but as yet there has been nothing that resembles that condition. Eastern demand is far above the ordinary. In April, ice companies began buying a good class of heavy horses, and then it was thought that outlet along that line would be small, and soon supplied. They have continued buying and in the past two weeks their demand was larger than in any previous period this year. Two conclusions are drawn from this demand. One is that ice companies in the past two years turned to motor truck delivery and consequently suffered their supply of horses to be depleted. Now they find that on the average haul, horse power is the most satisfactory and cheapest in the long run. Consequently they are going back to horse power, not only is this true in one city, but seems to be general in all Eastern cities. Ice has to be handled on short hauls, and autos are best only where a long trip is required. Other lines of traveling are finding the same conditions as ice men, and it is the prediction of some horse men that horses have a period of "come back" ahead of them in many lines.

As yet no rush war orders have materialized for horses and mules and that trade is resting on its oars awaiting developments in Cuba. Some traders have accumulated quite a holding of good trim cavalry horses, and moderate government orders could be filled in short notice. A large demand mould necessitate urgent country business.

Throughout the farm belt demand is fairly good. Rush farm work of all kinds is in progress. As is usual for this season of the year, and in two weeks grain cutting will begin in the early Southwest districts. On the present prospects Kansas will have between 130 and 150 million bushels of wheat, and in the Western sections they will have to buy a good many horses for harvesting. That demand will begin to appear in the next ten days.

Prices for all classes of horses are holding steady to strong. Plugs and common kinds show the usual fluctuations and choice kinds have been ruling stronger. Country buyers say that good horses are very scarce in the country, and that they have to cover more than twice the area now to get a car load they did a month ago. June is expected to show a falling off in both receipts and demand.

Receipts of mules in the past two weeks were the smallest of the season, and demand was correspondingly small. Values have not been fairly tested and most dealers quote prices nominally steady.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Drafters, 1700-pound extra quality	$250@300
Drafters, good to choice	200@245
Drafters, fair to good	150@185
Chunks, good	150@180
Chunks, fair	95@150
Southerners, good to choice	130@150
Southerners	65 up
Mules—	
13½ to 14½ hands	100@135
14½ to 15½ hands	130@165
15½ to 16 hands	160@210
16½ or better	200@265

Small Movement in Cattle Prices.

Prices for cattle held within a narrow range the past two weeks. Each week's opening prices were lower, and rallies followed later, so that the week ends showed no net change. Values seem to be on an established basis and the movement shows decided regularity. There is no pressure or incentive for marketing, crop prospects are promising, pastures are good, and thin cattle are none too plentiful. If a big corn crop is made this year feeding cattle this fall will be higher than ever before, and in the first six months next year fat cattle will be plentiful. Between now and December grass will be the chief factor in making beef, and where grain is an additional factor in the feed, prices will be high. Killers say that they are expecting an acute shortage in steers that show grain fat, in August to December. Feed lots now are nearly empty, and few steers are being put on feed. The bulk of the thin cattle going back to the country weigh between 500 to 750 pounds, and the trade in 1,000 to 1,100 pound feeders is comparatively dull, though few are offered.

Grass fat steers are coming from Southern Texas, and are bringing $7 to $7.75, weights and quality considered, a good price. This supply will increase as the movement from Northern Texas begins. However Texas will do considerable winter feeding from now on and the movement from grass will be curtailed to some extent.

The top price for steers in Chicago is holding around $9.50 and in Kansas City at $9.20. None of the river markets report many cattle selling above $8.75, though about 10 per cent of the fat steers in Chicago are selling at $9 to $9.50. Some fed steers are coming from Nebraska and Kansas, and a good many hay fed, and beet pulp steers will come from Colorado and the Northwest. Only slight distinction has been made in prices on the weight basis. Yearlings to all appearances, selling equally as well as heavier steers with the same finish. Heavy full fed steers are extremely scarce.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.00@9.25
Good to choice steers	8.40@9.00
Fair to good steers	8.00@8.35
Common to fair steers	7.00@7.95
Meal fed, choice	8.25@8.75
Meal fed, common to fair	7.50@8.20

Medium Heifers Lower.

In proportion to the amount of grass they show she stuff is 15 to 35 cents lower. The dry lot kinds are holding firm and in active demand. A good many cows and heifers are coming now that were held on wheat fields through the winter and on the early grass. They show a big decline in the past two weeks, the cows now selling at $5.50 to $6.50, and heifers $6.50 to $7.75. Prime heifers are selling at $8.50 to $9.00, and cows up to $7.50.

Killers say that cows this summer will be scarce and they expect prices to hold above last summer's level. An acute shortage is expected in "canners." Veal calves are up 25 to 50 cents, top price, $10.50.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$7.00@7.75
Good to choice	6.50@7.00
Fair to good	6.00@6.45
Common to fair	5.00@5.85
Canners	4.25@4.95
Heifers—	
Choice	$8.50@ 9.15
Good to choice	8.25@ 8.50
Plain to fair	7.25@ 8.20
Common	6.00@ 7.20
Veal calves	7.00@10.50
Bulls	5.50@ 7.50

Stock Cattle Scarce and High.

So few thin cattle have been offered this month that demand is unsatisfied and prices are firm at the highest level of the year. Towards the close of April prices reached an extremely high point, and demand subsided, but since then demand revived and many consider prices now beyond a safe limit. Stockers are selling at $7.25 to $8.50, feeders $7.50 to $8.40, stock calves $7 to $8.75 and stock heifers, $6.50 to $7.85.

The following quotations are for the various grades of stock and feeding cattle:

Selected feeders	$ 8.00@ 8.40
Good to choice feeders	7.60@ 7.95
Fair to good feeders	7.25@ 7.55
Plain to fair feeders	7.00@ 7.20
Selected stockers	8.00@ 8.50
Good to choice stockers	7.50@ 8.00
Plain to fair stockers	7.00@ 7.45
Stock calves	7.25@ 8.55
Stock cows	5.75@ 6.50
Stock heifers	6.00@ 7.50
Milch cows	60.00@110.00

Lower Prices for Hogs.

Hog prices closed the week 20 cents lower than in the last week in April and only about 5 cents above the extreme low point of the season. Lack of demand on the part of packers caused the decline. Receipts thus far this month have been considerably short of a year ago, and indications are that there will be no increase in the supply until another corn crop is available for feeding. Packers are bearish in the hog market because speculative prices for pork and lard are relatively lower than for hogs. A period of brisk shipping demand would send prices up considerably, but for some time the Eastern outlet has been unusually small, and Southern demand now is considerably less than a year ago. Packers figure that hogs will be more plentiful and lower in price than now, and consequently they are not anxious to store a line of cured meats. Light weight hogs are selling relatively better than heavy grades.

The following quotations are for hogs:

Choice, 250@300 lbs	$8.30@8.40
Choice, 200@245 lbs	8.30@8.40
Medium weight	8.25@8.40
Light weight	8.20@8.40
Common to fair	7.00@8.25
Stags	6.75@8.25
Boars	4.50@6.50
Bulk of sales	8.25@8.40

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week
Monday	$8.15@8.32½	$8.20 @8.45
Tuesday	8.20@8.35	8.15 @8.42½
Wednesday	8.20@8.37½	8.25 @8.47½
Thursday	8.15@8.40	8.25 @8.50
Friday	8.20@8.40	8.25 @8.52½
Saturday		8.27½ @8.42½

Boom in Sheep Values.

Wool and spring lambs have advanced 50 cents to $1 a hundred pounds in price, since the first of April and values now are the highest this year. Spring lambs in Chicago sold up to $10 and the top price in Kansas City was $9.25. Wooled lambs, winter fed, made $9.20 in Kansas City, but none was offered in Chicago. Clipped Texas sheep and shorn lambs were up 25 to 40 cents. Clipped lambs are bringing $7.25 to $7.75, and clipped sheep, $5.25 to $6.10. Receipts have been liberal, but demand for mutton is broad, and killers are no more than keeping even with their orders. Spring lambs will be fairly plentiful from now on.

Cash Grain Prices Higher.

Cash grain prices have advanced materially though speculative prices have shown little strength. The cause of this condition is a material reduction in the visible supply and indications that there will be none too much old grain to last until the old crop is matured. Corn now is near the record price of the year. Winter wheat and oats continue in excellent condition. The largest part of the corn has been planted.

The following quotations are for cash grain in car load lots on the Kansas City market:

Wheat—	
No. 2 hard	89 @91
No. 3 hard	88½@90
No. 2 red	89 @90
No. 3 red	88 @89
Corn—	
No. 2 white	75½@76
No. 3 white	73½@75
No. 2 mixed	74½@75
No. 3 mixed	73 @74
Oats—	
No. 2 white	40¾@41½
No. 2 mixed	39½@40
Rye	64 @64½
Chop	1.40
Bran	1.15@1.16
Barley	.52@ .55
Shorts	1.18@1.23

Lower Hay Prices.

Prairie hay was down 50 cents to $1 a ton and alfalfa in some cases off as much as $3 a ton. New alfalfa will soon be available for market, but other hay will continue in light supply.

Quotations are as follows: Alfalfa fancy, $17.50; choice, $16@17; No. 1, $14.50@15.50; standard, $12.50@14; No. 2, $8.50@12; No. 3, $5.50@8; prairie choice, $17.50@18; No. 1, $15.50@17; No. 2, $13@15; No. 3, $7.50@12.50; timothy choice, $18@18.50; No. 1, $17@17.50; No. 2, $15@16.50; No.



STEEL Shingles or Wood???

Will you buy wood shingles, which burn and rot, or Edwards Steel Shingles, which are absolutely rot-proof and fire-proof?
Will you buy wood shingles, that have to be nailed on, one at a time, or Edwards Steel Shingles, that go on in clusters of 100 or more?
Will you buy wood shingles at a big price or Edwards Steel Shingles at low prices, direct from the maker?
The time to decide is now—before you have invested your good money.

Edwards Steel Shingles

Factory Prices—Freight Paid

Don't jndge Edwards Steel Shingles by common galvanized roofing—which always rusts. We have a method that absolutely prevents rust from getting a foot-hold, as 125,000 people have found. It's the famous Edwards Tightcote Process.
No painting, no extras, no tools, no expert workmen needed. Hired man can do it with hammer and nails. Put 'em on right over old roof or on sheathing. Outlast four ordinary roofs. No dealer's profit to pay. Sold direct from factory to user. And we now pay the freight!
WRITE Get off a postal tonight and our Special Price Offer and Roof Book No. 676 will come by return mail. Then judge. Then decide "which is which"—Edwards Steel Shingles or wood shingles. Give size of roof, if you can. (132)
THE EDWARDS MFG. CO.
626-676 Lock Street, Cincinnati, Ohio

GUNN'S 2-HORSE GUIDER ROAD BUILDER

Fair associations clean the pots, and build up the turns. 10-ft machine has three guider wheels

Sold on 15 days trial. Guaranteed to move more dirt with less draft than any machine made. Two levers, one tilts the blade any angle, one raises and lowers the rear end of blade, leaving the dirt where you want it, crowning road bed smooth.



Made in 3 sizes
7-ft blade, $90
10-ft " 120
7-ft weighs 800
10-ft " 950

D. B. Gunn
RED OAK, IOWA

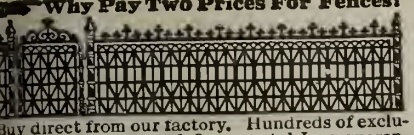
GOOD SHORTHORNS.

Pratical cattle for both beef and milk. Just the kind the farms of the country need, and with breeding and conformation to make show cattle if you want them. I show my breeding stock successfully, but no stock is ever crowded enough to hurt it.
Pleased to show stock, quote prices and answer inquiries at all times.
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StockFarm to Trade

I have a 200-acre stock farm in Dodge County, Minn., to trade for cheaper land in Northern Minnesota. On this farm is a 12-room house; barn 56x32 feet with stone basement, and other buildings. Come and see me or write what you have to trade.
ANDREW J. AABY, Hayfield, Minn.


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AS A MONEY MAKER

Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Building, Kansas City, Mo.

3, $13@14.50; clover mixed, choice, $16.50@17; No. 1, $15.50@16; clover, choice, $14@14.50; No. 1, $12.50@13.50; straw, $5.50@6; packing hay, $5@6.

CANADIAN WHEAT PROFITS DECLINING.

American wheat growers and farmers will be interested in a report of a commission appointed by the government of Saskatchewan "to examine into the ways and means for bettering the position of Saskatchewan grain in the European markets." Incident to this investigation the commission looked into the cost of producing wheat under present conditions in that province of Canada. The wheat producers of various sections of the United States will be interested to know that under present conditions the cost of producing Saskatchewan wheat, as determined by the commission, is reported to be 55 cents per bushel on the farm and 62 cents per bushel f. o. b. cars at country points. According to the report, the cost of production has increased 12.15 per cent since 1909, while, on the other hand, the price of wheat to the Saskatchewan farmer has decreased from 81 1-5 cents per bushel in 1909 to 66 1-8 cents per bushel in 1913, leaving a net return, on this basis, of 4 1-8 cents per bushel to the farmer.

It is possible that the interesting figures which have been developed by the grain commission will account for the fact that a large number of American farmers who have, in recent years left the States to engage in farming in this territory are now asking for a certificate which permits the return of household effects to the United States. If the economic situation suggested in the above statement is not the cause, perhaps it may be found in the long and rigorous winters characteristic of this section as compared with those in the leading farming districts of the States.

From St. Louis, Mo., was shipped the first purchase of mules made by the Government as a direct result of army operations in and near Mexico. They were bought about May 1 and shipped soon after to Texas City, Tex.

A Department For Women

FIRST FARMERS' CO-OPERATIVE LAUNDRY.

The first farmers' co-operative laundry in the United States is now in successful operation at Chatfield, Minn., where it is doing much to eliminate for the overworked farm woman the terrors of "blue Monday." Chatfield is only a small village and the laundry's patrons are almost entirely obtained from the open country around. Coarse clothing of all sorts, overalls, rugs, bed clothing and fine fabrics as well are handled at a uniform price of 5 cents a pound for washing and ironing. An extra charge is made for such articles as need to be ironed by hand. The laundry is managed in connection with a co-operative creamery, paying to the creamery a reasonable rental for the use of a part of its building. Modern machinery was installed at the beginning and an experienced laundryman engaged as superintendent. For the first year of operation, which has just closed, the receipts were $5,403, 70 per cent of which was paid out for wages. Patrons received a dividend of 10 per cent and stockholders 6 per cent additional. The success of the innovation will, it is said, prove most encouraging to rural workers everywhere.

WHY ARE WE AFRAID?

To the American Breeder:—Why are we afraid? What are we afraid of? We all have something we are afraid of. What it is depends on the individual. Some people are afraid of the dark; others are not. Women are afraid of mice; men are not. Some children are afraid of dogs; others are not. Some babies are afraid of strangers; others are not. Some people are afraid of burglars; others are not. Some are afraid to stay alone in a house. Since some people fear things that others do not, we may safely conclude that the cause of the fear is not in the thing, but in the person. If the fear arose out of the object then all people would be afraid of it.

What we are afraid of depends on us. We can make ourselves afraid of anything we want to, be it the fear of being poisoned or of being laughed at. And since we can make ourselves afraid of anything we can cure ourselves of any of our fears, our fear of the dark, our fear of staying alone or any of the others.

Goblin stories, told to children, to keep them quiet may fill them with a dread of the dark that will persist after they have become men. And yet, if we stop to consider it, we will find most of our fears groundless. We can cure ourselves of them by banishing all thoughts of them from our minds and thinking of something else.

The fact remains, we are afraid of what we allow ourselves to be afraid of.—Alfred Westfall.—Colorado Agricultural College.

PATTERNS FOR WOMEN AND CHILDREN.

SPECIAL ANNOUNCEMENT. We will forward, on receipt of 5c the Summer number of the Home Dressmaker, illustrating the latest embroidery designs, as well as hundreds of designs of garments for Misses, Women and Children, and containing two pages of hints on Home Dressmaking.

9895. Girls' Coat Cut in 5 Sizes: 6, 8, 10, 12 and 14 years. It requires 3 yards of 44 inch material for a 10 year size. Price 10c.

9697. Girls' Dress. Cut in 4 Sizes: 4, 6, 8 and 10 years. It requires 3½ yards of 36 inch material for an 8 year size. Price 10c.

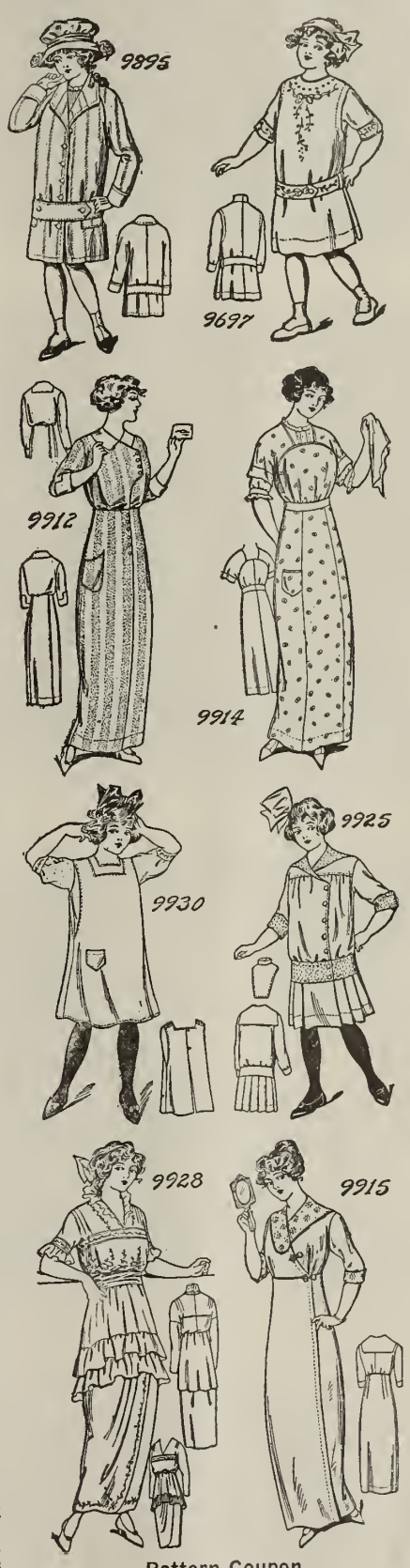
9912. Ladies' House Dress. Cut in 6 Sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. It requires 5¼ yards of 36 inch material for a 36 inch size. Skirt measures about 1¾ yard at the foot. Price 10c.

9914. Ladies' Apron. Cut in 6 Sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 4¼ yards of 36 inch material for a 38 inch size. Price 10c.

9930. Girls' Apron. Cut in 5 Sizes: 4, 6, 8, 10 and 12 years. It requires 2¼ yards of 27 inch material for a 6 year size. Price 10c.

9925. Girls' Dress. Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 4 yards of 36 inch material for a 6 year size. Price 10c.

9928. Costume for Misses and Small



Pattern Coupon.

In ordering patterns, be sure and fill in name and address plainly, also number and size of pattern desired.

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Address all orders to Pattern Department, American Breeder, 225 West Twelfth Street, Kansas City, Mo.

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Lowest Price, Easy Terms, No Interest
Write for our marvelous terms and catalog



$19.50
Buys This
VICTROLA
With 12 selections on 10 inch double faced records.

Other styles, $27.50, $47.50 and so on, up to to the largest Victrola (Cabinet Grand Style No. 16) at $207.50, with 20 selections on 10 double faced records.

We are distributors and we sell the wholesale and retail trade. We will send you a Victrola and collection of records at the lowest price in the United States, and you may pay 50 cents a week, or more according to the amount purchased. Just drop us a line and say—"Please mail Victor catalog and your lowest prices and terms". Address—

J. W. JENKINS' SONS MUSIC CO.
1015 Walnut St., Kansas City, Mo.

Women. Cut in 4 Sizes: 14, 16, 17 and 18 years. It requires 6¾ yard of 44 inch material for the 16 year size. The Skirt measures 1½ yard at the lower edge. Price 10c.

9915. Ladies' Kimono. Cut in 6 Sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5 yards of 44 inch material for a 36 inch size. Skirt measures about 1¾ yard at the foot. Price 10c.

RANGE CARE FOR INCUBATOR CHICKS.

To the American Breeder:—When incubator chickens are from eight to ten weeks old, we given them a free range, and feed them from hoppers, which are filled once a week. These hoppers have two compartments, one for the meal mixture and the otner for the cracked grains. Some poultrymen water their chicks only once a week. They use a good-sized barrel, fill it with water, and haul it to a shady place where it will keep cool. The barrel is fitted with a tap, which is set so as to let the water drop into a pan just fast enough to keep up the supply without waste. This plan is followed till the time for rounding up the chicks for the winter.—C. E. Brown, Poultryman, Northwest Experiment Station, Crookston, Minn.

FIGHT THE FLIES NOW.

To the American Breeder:—Now is the time to begin our fight against the house-fly. From 95 to 99 per cent of our flies breed in horse manure, so the obvious remedy is to prevent the collection of quantities of stable litter which might act as fly nurseries. The next favorite breeding place is the kitchen garbage and privies. These latter can be more easily eliminated than the former.

Begin early by removing all stable litter to the field. See that no small pockets of manure are left around the stable yard after the removal of the pile. Then follow this cleaning up by hauling the manure onto the field each day during the summer. This may seem like a burden to the farmer, but with a little forethought, it need not be so. Arrangements can be made for the use of a field for this purpose and it is a well-known principal that manure placed at once upon the field is of more value as plant food. Remember that during summer weather a period of five days may be sufficient to produce a brood of flies from the egg to the adult so that manure left in a pile for this length of time will serve as a breeding place.

In villages and small towns, where it is not possible to remove the stable litter every day, a lean-to or a room in the stable may be constructed which is dark and has ventilators covered with fine wire screening. This can be used to receive the manure until it is convenient to remove it. Flies will not enter a dark room to place their eggs and cannot enter a fly-proof room,

so the manure is safe from infection in such places.

Flies feed upon filth, such as sputum and that found in privies, but they are also very strongly attracted by the odors of cooking and food in the house. To prevent infection from being carried to our food, every precaution should be used to make the outbuildings perfectly sanitary so that flies cannot enter, and the houses should also have windows and doors fitted with screens.

The motto in fly control should be, "Better sanitation" both in the barnyard and about the house.—C. W. Howard, Assistant Entomologist, University Farm, Minnesota.

TEXAS STALLION LAW MISTAKE CORRECTED.

To the American Breeder:—Latest copy of the "Breeder" to hand. I see that you have not been rightly informed as to the Texas stallion law and that your answer to Texas Subscriber is not as it should be, on that account I am writing you. I do not want anything in so valuable a paper to mislead anyone. I am getting lots from it and feel that I want everything to be exactly right, so any one that gets his information from it will never question the truth of any statement made through the columns of the Breeder.

I am reading everything from "kiver to kiver," in each and every issue; have been benefited more than I could tell. Hope to attend the Breeding School in the fall.

I have used the capsules only one season and can see the profits now in dollars and cents. I keep two horses, one a saddler and the other Standard bred (trotter). If it were not for the demand for different kinds of horses I would only keep the one. Although I serve about 300 mares each year I could do it with one horse. I wrote you about breeding 17 mares in one day and settling 12 mares. One lost half grown colt which leaves 11. Out of the 11 I have nine living colts and will get the other two in the next week. Is that good for two covers? All of these are capsule colts as the mare that had the service did not stick.

Will return to the Texas law. You have from the time the colt is five months and until it is ten to enforce your lien. In other words, you can't take a colt until it is five months old and not after it is ten. Lien enforced same as statuary landlords' lien. Lien not good when the breeding is misrepresented or where horse is not kept for profit (standing purposes). This is right, as I have a copy of the revised statutes here before me. I bought the book, paying $4.50 and express, just so I could have that law and get it straight.

I have sent you a good many subs and will send more as fast as I can. I want a set of the charts. Will send check for them or if you will send them now I will send you more than the $2.50 in subs in the next thirty days.

Please send me a binder for the Breeder. I am using an arrangement that I fixed myself, as I want every copy. Have every one since my first sample copy, even before I subscribed. Wishing the American Breeder a long, prosperous and useful life, I am—C. M. Stamps, Upshur County, Texas.

FULLY AS MUCH AS WE CLAIM OURSELVES.

To the American Breeder (the best paper that was ever run through a press for farmers and breeders of all live stock):—I am always looking for my paper and wondering why it don't come sooner than it does. My wife enjoys reading the great paper just about as much as I do. Wouldn't be without it.—Missouri Subscriber.

QUESTIONS AND ANSWERS.

(Continued from Page 6.)

is very little use to use it. Spermatozoa to be fertile, when viewed under the microscope, should look as though they were going somewhere. Those that show a little motion without traveling will not be of much value. When a part of the cells are dead the physical condition of the sire should be investigated carefully.

1053—IMPACTION IN FOALS—Will you please advise me what to do with young colts when they are just a few days old and their bowels won't move. Have tried castor oil, raw eggs and syringe with warm water, but none of them seem to do any good.—Kentucky Subscriber.

REPLY—In the first place it is important to keep the dam in condition so as to prevent impaction of the bowel in the new born. This is but done by permitting the mare to have liberal exercise and she should not be fed too generously on such heating grain as corn. Oats, alfalfa hay, oil meal and so on makes the best diet for the pregnant mare. After the colt is foaled copious injections of water at blood heat to which soap or glycerine has been added is usually all that is needed. Medication by the mouth should be avoided as much as possible in these young things but if found necessary either warm castor or olive oil may be given.

1054—JACK REFUSES—I have a very fine six-year-old jack that I have had one year this month. Have never had any trouble with him serving mares at all; never did take over 15 minutes from the time the mare came is shed until she went out. (The hobbles were put on in this time.) Last month I bought another jack, a coming three-year-old. Since that jack has been here, can hardly get him to get ready at all to serve. He will stand like an old work mule, and yesterday the young jack did that way. I was puzzled and can't think what can be the matter. I take the best of care of them; feed oats, little corn and good timothy and clover hay mixed; their drinking water comes from the well. They are exercised. The older jack pawed at the wall of the young jack's stall considerably when he first came but not so bad now. Their stalls are not close together but the jack lot takes in some of the young jack's wall of his stall. I also have a horse; he is all right. I serve mares to the older jack in his shed always. Have never had any trouble of this kind before. Will thank you very much for advice. —Kentucky Subscriber.

REPLY—Better separate these jacks until the breeding season is over. Perhaps if the young jack is moved to a different place the old jack will come back to his natural condition. You might take the temperature of these jacks and see what their general condition is; they may be slightly under the weather. Be very careful with them until you get them started again.

1055—PUFF ON HOCK—Would like to know if there is a remedy for a small puff which has occurred in the hock on a heavy stallion. It occurred the other day while in service.—Iowa Subscriber.

REPLY—If the puff is due to a bursal enlargement you will find it difficult to remove. Apply tincture of iodine to the part with a feather twice a day until the parts become thick and dry and then allow to go for a couple of weeks at the end of which time re-

WHITEWATER FALLS STOCK FARM



PUBLIC SALE WEDNESDAY, JUNE 10

5 Percheron Stallions, 25 Percheron Brood Mares and Fillies
25 Holstein Cows and Heifers

Sale on Farm Send for Catalog

J. C. ROBISON, Towanda, Kas.





Imported Percherons and Belgians

All horses personally selected direct from the farmers, for good bone and of the best draft type and conformation. All will mature from a ton to 2,300-pound horses. I give a gilt edge guarantee good for two years. I am going to price them down very reasonable. Come and see them and be convinced.

W. H. Richards, :-: Emporia, Kas.

(Barns four blocks from A. T. & S. F. Depot.)

BELGIAN EMPORIUM OF AMERICA

Our March Stallion Importation Ready to Sell.
Spring Mare Importation Arrives April 15.



Largest collection of Belgian draft horses on earth. Also 20 choice Percheron stallions. The fall importation of 100 head, the second importation for 1913 swells the number on hand to 175 stallions, mares and colts. Many prize winners; many descendants of prize winners. All choice animals. We are farmers and stock breeders; twenty-eight years in the Belgian horse business. Each year adds to our strength, and now we can defy competition in quality, quantity and prices.

Four farms, all adjoining; 7 large barns.
Write for free illustrated catalogue.

H. LEFEBURE & SONS, Fairfax, Linn Co., Ia.

(Eight Miles from Cedar Rapids.)

Homewood Stock Farm

We have just purchased from Ed Harper of Onarga, Ill., his entire herd of Percherons consisting of weanling fillies and stud colts, yearling and 2-year-old fillies; some extra good imported and American bred mares, and the mother and sister of the champion American bred stallion at the 1909 International. This stock has the very best breeding, size and quality. Mares are all safe in foal and weigh 2,200 pounds. Everything will be priced to sell quickly.

This herd, with our other imported and American bred Percheron stallions and mares, gives our patrons over 60 head to select from. Come and see us. No one can show you a better lot of horses and mares than we can, and remember no one can undersell us.

We have also a few choice Belgian and Shire stallions and a choice pair of 3-year-old Belgian mares weighing 3,800 in foal.

Homewood is conveniently located 23 miles south of Chicago on I. C. and Big Four railroads. Suburban trains to and from the city hourly. Bell Phone, Homewood 58W.

S. METZ & SONS, HOMEWOOD, ILL.

IMPORTED DRAFT STALLIONS FOR SALE

Four extra good Belgians; ages 6 to 7; average weight 2,300. One good French draft; 4 years old; weight 2,000. This is an extra good one. These have been used in our stud since imported, and we have many fine colts their gets, to show, as well as a large number of mares in foal, proving them splendid sires.

We are making a change in our business operations, and will offer these stallions, quality considered, at remarkable prices. If interested write or come and see them. Our barns are but a mile from the station, where we will meet you.

We make a specialty of buying stallions or pure bred mares on orders. If your community is in need of a good draft stallion we want to hear from you. All records are complete on each horse.

R. J. CRAWFORD & SON, MILES, IOWA. PHONE 163, MILES.

We Write Life Insurance on Horses.

THIRTY PERCHERONS AND BELGIANS



and one Shire. They range in age from 1 to 7 years; all sound and heavy boned; weighing from 1800 to 2,200 pounds. There are 17 stallions and 13 mares. I will also sell my herd stallion, Jupiter 65723, coming 5 years old; weight, 2200.

These stallions are all sold under a guarantee to be 60 per cent foal getters. I have four year olds that weigh 2200; 2 coming 3 that weigh 1800. Can sell a good ton stallion for $750; sound and right in every way; some a little higher, and some lower. I will sell at a bargain to early buyers. I have both imported and home bred stock. PETER J. EGGERS. DENISON. IOWA.

Imported Belgian Stallion

For sale—Lieven De Kerke; Belgian No. P. 1176; American No. 8082; color chestnut; foaled May 10, 1911; weight 1900 pounds. The wide out kind, broad and chunky; well muscled; a top notcher and hard to beat. Will mature to 2100 pounds at least; well broke to breed and drive single; very gentle and a kind disposition; any boy can handle him. Was imported in December, 1913. He is good enough to head any herd of full blood mares. Write me for price and further description and photo. Will price him right for quick sale. Come and see him at once if you want a good stallion. L. L. BULTENA, LENNOX, LINCOLN COUNTY, SOUTH DAKOTA, ROUTE 1.

Percheron Stallion Show; Pages 1, 5, 7, 11, 15 and 17



No. 13—(N. Dak.), Height, 67; Heart, 84½; Bone, 11.



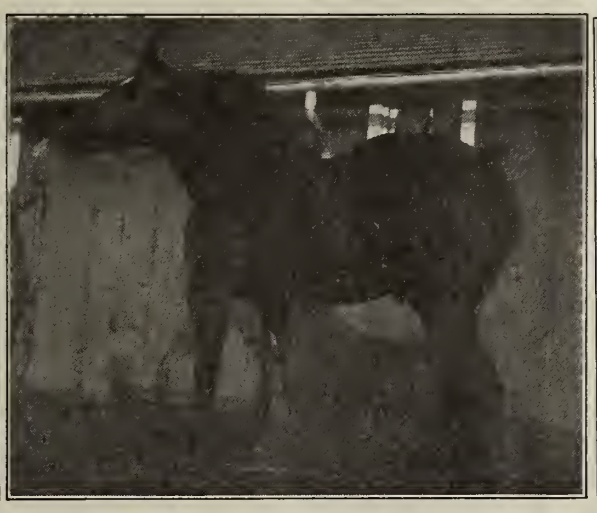
No. 56—(Kans.), Height, 68; Heart, 96; Bone, 11½.



No. 47—(N. Dak.), Height, 76; Heart, 87; Bone, 12.



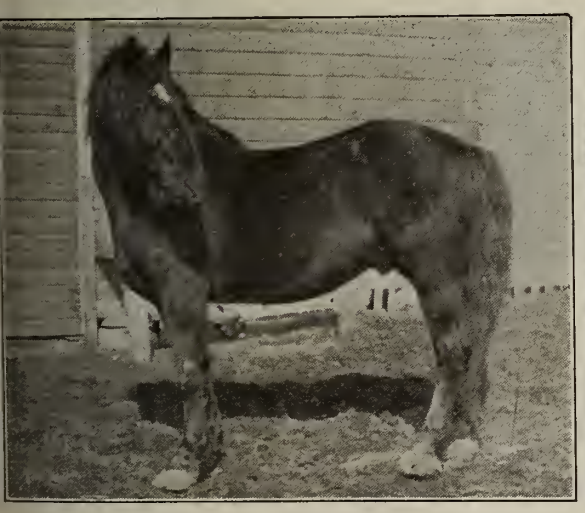
No. 60—(Mont.), Height, 72; Heart, 90; Bone, 10¼.



No. 51—(Ill.), Height, 70; Heart, 85; Bone, 10¾.



No. 38—(Iowa), Height, 72; Heart, 92; Bone, 11.



No. 31—(Iowa), Height, 67; Heart, 82; Bone, 10.



No. 34—(Iowa), Height, 69; Heart, 90; Bone, 11¼.



No. 5—(Missouri), Height, 71; Heart, 93; Bone, 11.



No. 9—(Ill.), Height, 68; Heart, 93; Bone, 10½.



No. 20—(Texas), Height, 68; Heart, 87; Bone, 11½.



No. 53—(Ind.), Height, 70; Heart, 84; Bone, 14.

PERCHERON AND BELGIAN
Stallions. Can show the buyer one stallion or 50, $450 and up. Some weigh 2160 pounds. For sale, part cash, balance, 1, 2, and 3 years at 6 per cent.
R. I. LITTLE, Route 2, FAIRFAX, IA.

PERCHERON STALLIONS, MARES AND FILLIES.
Imported and home bred, for sale at reasonable prices.
W. C. BAUGHMAN, Pulaski, Iowa.

BELGIAN, SHIRE AND PERCHERON STALLIONS
and mares, also Standard bred stallions and mares, $200 and up. E. P. Hamilton & Sons, Garden Grove, Ia. (Mention this paper). 23 miles S. W. of Charlton, Ia., 82 miles south of Des Moines, Ia., at Leroy.

4 GOOD PERCHERON STALLIONS.
Two Are Imported; Two Home Bred.
And all ready for service. These are for sale at reasonable prices. I have also for sale several younger stallions and some imported and American bred mares and fillies, all good.
MANUEL CROSS, Adrian, Minn.

150 STALLIONS
Imported and home-bred stallions. I guarantee to sell you stallions for less money than any firm in America. Come to a Live Horse Market and see all draft breeds. Reference, any Bank in Creston. **A. Latimer Wilson, Creston, Iowa.**

CLYDESDALE HORSES
Stallions and mares of all ages for sale.
Also Shorthorn Cattle.
W. A. DeMerritt
Route 2, Plainfield, Ill.

IMPORTED AND HOME BRED STALLIONS AND MARES.
PERCHERONS, BELGIANS, SHIRES.
The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perche this year. See what we have before buying elsewhere. **Address Hart Bros., Osceola, Iowa.**

peat the application. Use nothing on it during the interval to soften it, as you want to keep the place hard and dry.

1056—DIFFICULT ENTRY—I have an imported Percheron horse; weight 2,100 pounds; kind and gentle in every way easy to handle but just as soon as the bridle is on he seems to get ready and by the time he has entered he is as proud or has such a big head on his penis and can't enter a mare, and many times have to jerk him off. I have teased some with him; keep a teaser but mostly take him from the stall right to the mares; teasing or no teasing don't help matters. He is a very amorous horse. I don't know what to do for him. I give him plenty of exercise and feed oats, bran prairie hay and alfalfa.—Nebraska Subscriber.

REPLY—Bridle your horse and take him out in another direction. Make him put up the penis and keep it up. Gradually lead him around to where you expect to breed; when he is within a reasonable distance carefully turn his head toward the mare and let him get an erection and make the service. The mare, however, should be opened up before hand by running the arm in the vagina so that the entry will be easily made.

1057—CONTRACTED TENDONS—A neighbor has a mare nine years old and weighs 1,200 pounds, that was thought to be foundered last fall, leaving her in a critical condition. She stands and walks on her toes with her front feet only, and sometimes falls over forward. Can this mare be cured by cutting the first leader in the back of her leg just above the hoof, and let her heel come to the ground? This back leader is as straight as a fiddle string, which makes her stand on her toes. She is all right every other way. —Texas Subscriber.

REPLY—The symptoms you have described are not those of laminitis, but are more like rheumatism. Rheumatism sometimes results in a contraction of the tendons such as described and the only remedy at this stage would be to have a competent surgeon sever one or both of the back tendons so as to permit the heels coming to the ground. This operation should be performed with great care if found necessary to operate on both limbs in order to make a success of the case.

1058—YOUNG COLTS DIE—There are a few men in our neighborhood whose mares have lost their colts when only a day or two old. The mares are in good condition and they cleaned good after they had their colts. Would there be any danger of giving the horse a disease to breed these mares? —Kansas Subscriber.

REPLY—We do not believe there would be any danger from breeding these mares provided the colts were carried to maturity. You should advise your customers to watch the bowels and urine to see that all organs operate at the right time.

1059—HEMORRHAGE FROM STALLION—Two years ago I bought a very fine stallion that had been brought here by his owner from Ohio, and sold to me, of course, for a sound horse. During the season of 1913 I did not have very much work for this horse, but noticed on one or two occasions, a bloody discharge from the horse immediately after serving a mare. This season I have about all the work the horse can do and I notice this bloody discharge comes more frequently. One time there was as much as a small teacupful; found it as soon as the horse hit the ground with his forefeet, and at other times the horse seems to suffer just a little; he may suffer more than he seems to, as he is very ambitious and never complains but a very little. He always looks good, however, and seems to be in the very best of condition. Now if you can tell me what I can do for this horse it will be invaluable to me, as he is making a great reputation here and will soon have more work than he possibly can do, besides being the best driving horse I ever saw, and any lady can drive him. —Tennessee Subscriber.

REPLY—It is always difficult to determine the source of the hemorrhage without the opportunity of making a personal examination, but such hemorrhages usually come from the mucous membrane of the urethral tube. Sometimes there are ulcerated spots on the mucous membrane that bleed easily whenever the penis is surcharged with blood. It will be necessary for you to have a veterinarian make a personal examination in order to first locate the seat of trouble before you can hope to apply treatment satisfactorily.

1060—YOUNG JACK—I have a young jack that will be three years old the 13th of June. How many mares should I serve with this jack this season. He has already served about 15. He is always ready when I open the stable door. He does not mount quickly as some jacks do; I always give him his time and he makes good services. I just bought this jack of an old jack raiser and he told me that the jack had got out of his stable with some mares that were heavy with foal and had got severely kicked, and I am of the opinion that this is the cause of his being slow to mount. I am very careful with him and I don't take any chances of him getting kicked. If you can give me any information that will help with this fellow it will be greatly appreciated.—Oklahoma Subscriber.

REPLY—Three services a week ought not to hurt this jack. Be very kind and gentle with him. Do not try to breed any mares that show any signs of wanting to fight. Be sure that you have the mare in a good, substantial place so that the service will be made satisfactorily. With plenty of good treatment this jack ought to get better.

1061—COW SUCKS HERSELF—Please give a remedy for a cow that sucks herself. This is a young cow's first calf. She just began that when the calf was weaned.—Tennessee Subscriber.

REPLY—While there are numerous devices that may be applied to the cow's muzzle that may help to prevent her sucking herself, yet the most satisfactory way is to have your veterinarian remove one-half of the tongue beginning at the tip and extending back about two and one-half inches. By this we mean the lateral half. This puts the tongue in shape so she cannot grasp the teat and at the same time in no way interferes with the cow's feeding.

URINE UNDER THE WOMB—I have two mares that came here to breed that can hardly be settled. I found a handful of urine or more in both of them just under their womb. Please tell me what to do for them.—Missouri Subscriber.

REPLY—Use the saline solution two or three times in order to build up these organs.

1063—ECZEMA—I have a Black Hawk Morgan mare eight years old. She had the distemper four years ago. She did not run from the nose or break under the neck. In a short time the hair came off in spots all over but it seemed to be worse on her neck and withers. It seems to itch a great deal. She had three colts in the last three years and it don't affect the colts any. I would like to have you tell me what will cure her, or is there any cure for her?—Oklahoma Subscriber.

REPLY—It would appear that your mare has an obstinate case of eczema. She should be permitted to have a season's run at grass with one-half ounce Fowler's solution in a little grain twice a day morning and night. In the course of ten days gradually increase the dose of medicine to three-quarters of an ounce and continue for two or three months if found necessary. You must persist in the treatment if you expect results.

1064—DIAGNOSING PREGNANCY—I have a mare that was bred the last of June, 1913, and I thought she was safe with foal, although she did not show much, and now she is showing signs of being in heat. Is this any sign of her not being with foal? How can I prove whether she is in heat or not?—Kansas Subscriber.

REPLY—Pregnancy can be accurately diagnosed by a rectal examination. You will not have to wait very long now to know positively whether she is in foal or not without an examination.

1065—STIFF AT FOALING TIME—I have a six-year-old mare, draft type, that always swells and stiffens up in the hind legs before foaling. She has had two colts and after she foaled the

PERCHERONS, BELGIANS AND GERMAN COACH MARES AND STALLIONS
of all ages for sale. I have recently taken over the entire stock of horses formerly owned by the firm of Ives & Bellman and can furnish patrons with first-class breeding stock of the foregoing breeds. Have a fine lot of 2 year old and older stallions to select from. Address,
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Imported and Bred
Stallions Always on Hand.
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Percheron stallions two and three year olds; all blacks. The great big kind, will mature into horses weighing 2400 pounds. Come and see them, no reasonable offer refused.
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65 GRADE PERCHERON MARES 65
one to fifteen years old. Will sell reasonably as I am short of pasture Several of the mares are in foal.
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WHITEOAK STOCK FARM
American Bred Percheron Stallions and Mares.
The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**
Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.





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Dear Sir:--Enclosed find my check on the Exchange Bank of Jefferson City, same being for the services of ASTRAL KING.

I have one of the finest colts I ever saw, and I want to express to you my appreciation of ASTRAL KING as a transmitter of style and finish.

Yours truly,
J. ED. BELCH.

Osage City, Mo., May 15, 1914.

Arizona Range Mares For Sale

From one to two carloads. Mares weighing 850 to 1100 pounds, with good shape; crossed with Steeldust. Just the mares to raise saddle stock and drivers. Correspondence solicited. WM. RUSSELL, SPRINGERVILLE, ARIZ.

REGISTERED MORGANS.

My Morgans are large; 15 to 16 ands and 1050 to 1300 pounds; have lean, heavy bone and possess all of he style and endurance for which the reed is noted.

Having bought Headlight Morgan to ead a selected stud of The Admiral lares, The Admiral is now for sale. le is 15¾ hands high; weight 1250 ounds, and is the greatest all-round orse I know. I have 200 of his get n the place; part of them for sale.

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For Sale. Ten registered black stalons; mature 15½ hands; 1,200 pounds. Mares and fillies from yearlings to ature ones. Describe what you want first letter.

. F. BROWN, DERBY, IOWA.
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Stallion For Service

Council Chimes 2:07½; pure bred license No. 1769.

A demonstrated speed sire; sire of linnie Chimes 2:04½, and many others n standard time. Liberal terms on pplication. Write for pedigree and nformation.

I have a good French draft stallion nd a big grey jack for sale.

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Registered stallions and mares; all ges. Also a few Hereford bulls.

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For sale. Registered saddle stallion by the Great Chester No. 10; sound and good breeder. Two, two-year-old registered Percheron stallions and ten acks from yearlings to five years old; rom 14½ to 16¼ hands high for sale t reasonable prices. Write your vants or come and see me.

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EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Ponies or sale. W. H. Fulcomer, Belleville, Republic County, Kansas.

GREAT PONY BARGAINS.

I am leaving the farm and will close out my reserved stock of Welsh-Hackney ponies, all from imported stock and high class in every particular. Bay, seal brown, dappled chestnut and gray. Stallion, mares, fillies and gelding.

OLATHE PONY FARM, Olathe, Kan.
Electric cars hourly and 10 steam trains daily from Kansas City.

last one she was very weak and the afterbirth had to be taken from her. Have always given her plenty of exercise while in foal and the usual feed of grain and hay. She appears to be healthy and all right and has no womb disease. Do you think it safe to breed this mare? She seemed to be in worse condition at the last foaling than at the first.—Kansas Subscriber.

REPLY—If you have observed proper care during pregnancy in the way of feeding and exercise as well as proper housing from inclement weather, you have done about all that can be done and it perhaps is not best to jeopardize the life of your mare by continuing to breed her.

1066—ENCOURAGING MASTURBATION—We have a Percheron stallion that we allow to run in a lot, and in this lot is our teasing pit where we tease all the mares. Do you think it will hurt this horse in any way about his breeding to run loose where he can go to this teasing pit any time he gets ready?—Missouri Subscriber.

REPLY—Some horses can be handled in this manner for years without any serious results but many of them are spoiled with just this treatment. No stallion or jack should ever be allowed the use of a paddock where mares are teased or bred, and this is especially true of young stallions and jacks. A lot of good sires are ruined every year by this kind of handling.

1067—RHEUMATISM—One of my patrons has a mare ten years old that started to make bag about six weeks before foaling, and about two weeks after foaling, her bag caked, and there was a swollen ridge from her bag to her front legs. Her joints also swelled and for a while she was hardly able to walk. This mare has had access to the range and has not been fed grain. She now has a colt and is all right. He is going to breed her back again. What treatment would you advise should she become the same way next year? Also what can be done as a preventative? Also what would this condition be called?—South Dakota Subscriber.

REPLY—Mares frequently previous to foaling swell underneath the abdomen, enlarge in the joints, etc., and show evidences of rheumatism. About all that can be done in the way of prevention is to permit the mare to take exercise during the pleasant weather, but keep her in during cold, wet inclement weather. These are conditions that frequently go with pregnancy and the employment of such methods as are most conducive to good health is about all that can be done.

1068—DIAGNOSING CONDITION OF A MARE—A ten-year-old mare was brought to my place a week ago which has never raised a colt. I examined her and couldn't find anything wrong excepting that the cervix was closed very tight. I opened her up enough to allow one finger to enter and bred her with the natural service. She was put to work the next day and on the third day she threw off what looked very much like the white of an egg and about that amount. Since that time she has kept throwing off from a half teaspoonful to a tablespoonful quite often; sometimes it has a clear color and sometimes looks quite yellow. She seems to feel good. She passed out of heat after the service. Do you think she has settled, or what do you think about her?—Montana Subscriber.

REPLY—It would be difficult for us to state just the exact condition of this mare without a personal examination. We are of the opinion, however, that this mare will not settle without treatment. If she is in heat at the next heat period you had better clean her up.

1069—METRITIS—I had a mare to sicken and die and no one seemed to know what the trouble was. At first the symptoms indicated urinary troubles, but in a short time showed some symptoms of spasmodic colic for a few minutes at a time, but perhaps hours or more apart. These two symptoms continued about 18 hours. After this the symptoms of urinary troubles continued together with slight symptoms of pneumonia. After 24 hours from the time she was taken sick, an examination of the uterus and mouth of bladder was made by oiling hand and passing in vagina which showed the following. Mouth of uterus closed, very dry and seemed to be lifeless. On examining the mouth of bladder a large amount of wind passed out of bladder, but no urine at time of examination, but about ten minutes later she passed about one pint of urine, being first since taken sick. After this she seemed some better until a short time before death, seven hours later. The mare stood on her feet the last 12 hours she lived and just dropped dead. After death we made a post mortem examination. The entire digestive tract seemed healthy, also the urinary system, but found the uterus in bad looking condition, being a purple-green color. This mare lost a colt last fall and has not been in heat this season. Seemed to be in good health otherwise. Is there such a thing as suppressed condition at heat period to cause the trouble? I consulted a veterinarian who has been practicing probably 30 years, who said it was new to him. Any information on this trouble will be greatly appreciated.—Missouri Subscriber.

REPLY—While your description does not enable us to render a certain diagnosis of the condition causing the death of your mare yet if the changes noticed in the uterus were observed shortly after her death she unquestionably had a severe case of metritis which disease is capable of causing death with the symptoms you have recited.

1070—BREEDING OUT OF HEAT—I bred my jennet with a capsule two days after she had gone out of heat. Now if she comes in heat again must I re-capsule her then or wait until she comes in the second time after the first time of breeding? Which is best to capsule during heat, just after, or just before? Or does it make any difference?—Illinois Subscriber.

REPLY—If your jennet was not bred later than two days after the heat period was closed she should be bred again at the next heat period if in heat. When mares or jennets are bred several days after the heat period has closed, then try them in 30 days after and once a week after for three weeks. The best time to breed mares or jennets is just as they are going out of heat or perhaps still better two days after they have gone out of heat. All services made out of heat should be done with the capsule.

1071—INJURED CERVIX—Please give advice and name the trouble in the following case: An aged gray mare had a mule colt last season; afterbirth came with the colt and was dragged to the pasture for some time before colt could be caught and have it removed or cut away. Colt lived and did fine but the mare failed to get with foal again; service of stallion appeared to hurt, and for some weeks after the service she appeared to be stiff and in pain. Since last fall the mare has been continually in season (even during winter months). Examination now shows the opening to the womb so large that your hand will easily pass.—Texas Subscriber.

REPLY—It would appear that the cervix of the mare had been injured or at least is in a condition wherein one could not expect recovery to a point where the mare will breed again. The injury to the cervix may be sufficient to cause chronic estrum, but this cannot be determined without first making a careful examination of the ovaries. This mare should not be bred as she is under any consideration.

1072—TOP CROSSES—How many crosses have you got to have to get a pure bred horse? Now I have what I think is one cross. She was sired by a pure bred horse but the mother is only a grade. Is this one cross? If so, how many will I have to have in the Percheron strain and also in the Belgian?—South Dakota Subscriber.

REPLY—The record associations referred to both require registered ancestors before the progeny will be accepted. Your mare has one cross.



The kind all are looking for; large boned, black Mammoth Tennessee and Kentucky jacks; 2 to 6 years old; guaranteed and priced to sell; all broken and prompt servers. Reference, banks of Lawrence. 40 miles west of Kansas City on U. P. and Santa Fe.

AL. E. SMITH, Lawrence, Kans.

6-JACKS--6 17-JENNETS-17

The jacks are three and four years old, and they and the jennets are all good stock. All black with mealy noses. I want to close them out this spring, and will make the prices right.

JOHN A. EDWARDS, Englewood, Kas.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address

J. C. HUCKSTEP, Eolia, Pike County, Mo.

7 Jacks and 12 Jennets FOR SALE

Or Will Trade for Land in Rain Belt

H. A. Schwatken, Hammond, Kas.

JACK

For sale or trade. He is black with white points; 15 hands high; good head and ear; prompt worker and sure breeder. Would trade for a young, high grade Percheron filly or a good registered Shorthorn cow, or sell him cheap for cash. I am using capsules and do not need but one jack. This jack is a good breeder on mares; have mules to show what he does.

W. F. CORBIN, CORDER, MO.

Jacks For Private Sale

In order to reduce my jack stock I will sell at very much reduced prices for the next 60 days. I raised most all of my jack stock and can sell them cheaper than the man that deals in them. My jacks are all black with white points; in ages from 2 to 6 years old; in sizes up to 15¾ hands.

U. G. SAUNDERS, Flemingsburg, Ky.

JACKS.



20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.

Phil Walker, Moline, Elk County, Kas.

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For sale. I have some good jennets which are kin to my herd jack, for sale at a bargain. Also young jacks, one to coming four years old, and the large, big boned Poland China hogs, breed sows and boars old enough for service, and pigs. Seven miles North of Monett on Frisco R. R., and six miles Southwest of Hoberg on Mo. Pac. R. R. Write for prices to

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EXTRA GOOD JACK

For Sale. Coming 4 years old; 15¾ hands standard; weight around 1,100 pounds; black, with white points, nicely marked. Sired by Missouri King that sold for $2,000. Good enough to head anybody's herd of jennets. Come and see a good one; if you don't find him strictly good I will pay your expenses.

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50 registered, big boned black jacks and jennets. Colts to 16 hands; big, stylish, good lookers; great mule jacks. J. H. SMITH, KINGFISHER, OKLA.

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Also imported Percheron and Belgian stallions; some weigh 2160 pounds. Stock for sale on long time payments, 1, 2 and 3 years at 6 per cent.

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I WANT TO BUY

A JENNET SPOILED JACK or an old big Jack to use on jennets alone. Write me.

ALBERT GREEN, Rich Hill, Mo.

Fine Kentucky Jacks For Sale



Will be in Hiawatha, Kas., about March 6th with a car load of fine Kentucky jacks for sale privately. Anyone wanting a jack call and see our stock.

Also have 40 head of jacks and jennets at our home, Poplar Plains, Ky., for sale privately. Ages from one to four years. **SAUNDERS & MAGGARD.**

MAMMOTH JACKS

For sale—Large, heavy boned, 15 to 16 hands high. Prices from $250 up. Located eight miles west of Cedar Rapids, Ia., near Fairfax.

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300 HEAD of Colorado raised Jacks, Jennets, Mules and Brood Mares. All guaranteed. Prices right. **Lewis Swink & Son, Rocky Ford, Otero County, Colorado.**

1073—KNUCKLING COLT—I see in your paper where you recommended blistering the ankle for knuckling. Now I would like to know on which side, front or back; how far up and how far down to put the blister. This is for a two-year-old colt that is at times inclined to knuckle in the hind ankles.—Illinois Subscriber.

REPLY—Permit the blister to completely encircle the fetlock and be especially particular in applying it to the sides and rear.

1074—BREED OF HORSES—How came the breeding of Norman horses to be discontinued? They were a registered horse, were they not? How is registration acquired? What is a Standardbred horse? How many generations does it take to purify a breed? —Oklahoma Subscriber.

REPLY—There never has been a record association for Norman horses, either in this country or in France. Percheron horses have been called Normans. Other men have called the Boulonnaise, Normans. The Norman name should be dispensed with. The Standardbred horses have originated largely from the Thoroughbreds. Performance has been the standard of registration as foundation stock and is largely the standard of registration at the present time. Nearly all of the standard record associations require a registered sire and dam before the progeny can be recorded.

1075—ABORTION—I have a customer who has a mare 12 or 14 years old that for the last two times she has been foaled she has lost at about seven months. She is easy to foal. The last time bred was last year; served one time and lost twins. Please give me a remedy for the trouble if you can. She has carried several to time and saved them.—Texas Subscriber.

REPLY—We do not believe it advisable to undertake the protracted treatment necessary in a mare of the age you mention. If she has aborted twice in succession it will be doubtful if you can settle her satisfactorily without the personal guidance of a good veterinarian, who can look after your needs in person.

1076—PARROT MOUTH—I have a fine jack that gets colts with a short upper jaw. Is this what they call "parrot mouth," and will they ever outgrow this? Is it a common occurrence among jacks to breed this way?—Kansas Subscriber.

REPLY—A parrot mouth is one in which the jaw is short, allowing the front teeth to extend too far forward so that the teeth do not contact. The case you describe is equally as bad. If many of the colts from this jack are deformed, he will be of little value; the colts are not liable to outgrow it. A stallion is just as liable to transmit this deformity as a jack.

1077—ABSCESS IN UDDER—We have a mare that has had her bag burst three times; it is the back part of the bag. It seems to fill up and burst. The stuff that comes out seems to be of a white color and it has an odor to it. The first two times it bursted was about a month ago, and then it seemed to heal up; the other day it broke again. Do you think it is dangerous and will it hurt the colt's milk after it is born? She seems to be in good health otherwise.—South Dakota Subscriber.

REPLY—It is quite likely that the half of the udder involved in abscesses has been destroyed so far as secreting milk is concerned and there is no great danger immediately from that source. The difficulty is that the foal is liable to pick up innumerable germs from the discharging fistulous tracts and in that way contract disease. These cases of chronic suppurative mammitis rarely recover under ordinary medical treatment. The best way is to have a competent veterinarian remove the disease portion with the knife. As it is it is of no value to the mare and its failure to heal gives rise to all sorts of annoyance.

1078—DOUBLE PREGNANCY—Something very strange happened here last month. Wish you would explain. In May, 1913, I bred a mare for a neighbor, tried her the forty-second day and turned her off. After three months she was returned. I examined her and thought she was in foal. In ten days she came back and in the face of my better judgment I opened her and bred her again. In April, 1914, she foaled a pair of twins, one fully developed and black, and the other one about eight months gone; it was bay. Now I have always been instructed to be very careful and not break the mucous plug or it would cause an abortion. If the theory is correct, how is it that this mare settled from the last service? If you can explain I will greatly appreciate it.—North Dakota Subscriber.

REPLY—There are exceptions to all rules. In this case perhaps an overdue amount of fluid was present in the uterus. The cervix probably opened from the inside and liberated this material. At such times there probably is not so much danger of causing an abortion. The mucous plug should never be broken from the outside as an abortion nearly always follows. Double conception is liable to take place at any time up to about the fourth month.

1079—USING A JACK—I have a jack that will be two years old the 28th day of next August. Would it be wise to use him for about a dozen mares? I have an old jack that I can use, but would rather have colts from the young one if it would not hurt him.—Nebraska Subscriber.

REPLY—Better not use this young jack until next spring. He will be too young to use on mares before fall without taking great chances of injuring him. It will be more profitable to keep him growing nicely until next spring.

1080—SHY BREEDING MARE—I have a mare six years old that has been bred the past three seasons but fails to settle. The mouth of the womb seems to be very large. Can get three fingers in mouth of womb. There is no one here who uses the capsule system of breeding. Last year I quit working the mare and let her run on pasture all summer, but she took the horse from the 15th of May to the last of August, when I quit trying her. Can you tell me anything to do for her?—New Mexico Subscriber.

REPLY—Breed this mare with a capsule two days after she goes out of heat.

1081—TRANSPORTING THE SEMEN—Is there any satisfactory way of breeding mares where it would require six or seven hours to transport the semen?—Missouri Subscriber.

REPLY—It has been done but we are not advocating it.

1082—HAS BEEN MISSING SOMETHING—We have been having some arguments as to which of the draft breeds of horses are the largest as a whole and which made the best cross on common range mares, and bred truest to type. Also which have been bred purest and records kept. I hope to see some person in a position to answer these questions from actual observation and experience.—Montana Subscriber.

REPLY—About a month ago another Montana subscriber asked a question covering one of the points in the above inquiry, and in the five or six issues which followed the publication of his question there appeared dozens of letters written by men in all parts of the country on the subject of what kind of stallions made the best cross for range mares. Even in this issue will be found one or two communications which came as a result of publishing the Montana man's question, and there appears to be a wide divergency of experience and opinion on this subject. We suggest that the new inquirer consult the past issues of the paper if he can possibly secure them, and at the same time we open our columns to any one who can add to what has been printed.

REGISTERING JACK FOUNDATION STOCK.

The Standard Jack and Jennet Registry of America is being flooded with applications. The office force is so busy answering correspondence that they have not had time to issue certificates for some time and do not expect to get out many until after June 1st.

It is remarkable where all of these applications are coming from. Every jack producing section in the Union is patronizing this association. Each day its mail gets a little larger. For a long time this has been the biggest jack register in the world and it has been predicted that it will double in numbers before June 1. Breeders who have never before registered their stock are now sending in applications on their animals that are up to standard. Those who have not attended to this should register their stock immediately while the old rules are in

(Continued on Page 16.)

THE BEST Stallion Service Record Book

EVER OFFERED

This book has 200 pages. It is substantially bound with a good, strong waterproof cover. It has 20 index pages for keeping the owners' names in alphabetical order so that any name or mare can be found quickly.

The breeding contract at the bottom is the strongest possible kind of a note. It is a big help in making collections as nearly every state has a law for the collection of labor debts without exemption, and this is a contract to pay for services rendered. Before it is signed run a pencil through two of the lines in the contract, leaving the line that makes the kind of a contract you want. Many will sign a contract who would refuse to give a note.

This book has a calendar and gestation table. It can be used for several sires without carrying more than one book. This is the most complete and up-to-date service record book printed. It is a nice size and can be carried easily in any pocket. Every breeder should have one. After improving it for several years, the result is this most satisfactory book. A complete new edition is just out. Although this new book has double the capacity of those offered heretofore, it sells at the old price. It is not bulky, as it carries no advertising or other unnecessary matter. It will be the standard record book used by the leading breeders.

If you are not satisfied with the book or do not consider it the best and cheapest on the market, return it and your money will be cheerfully refunded. The price is 50 cents; six for $2.75; postage prepaid. Send all orders to the

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225 West 12th St., Kansas City, Mo.

R. L. HARRIMAN, Bunceton, Mo.

The Fine Horse and Jack Auctioneer of the West

I sell more horses and jacks than all others. Terms always right: work always up to the highest standard.



JACKSORINE, THE BEST

Cure For Sores on the Legs of Jacks and Stallions, Now Sells for $3.50.

This undoubtedly is the best remedy for jack sores ever put out. It is made from a scientific prescription and was used with absolute success by the president of this company on his own stock.

Two years ago we began selling JACKSORINE to the public, charging $5.00 per can and refunding the money in every case which did not effect a cure. Less than three purchasers out of every hundred claimed a refund, and doubtless in these cases the **JACKSORINE** did a lot of good, although as these cases were from 100 to 1,400 miles distant it was impossible to investigate and we simply refunded the $5 in all cases.

Because of this condition and the fact that the increased demand enables us to buy our chemicals much cheaper, we believe it is fairer to all to reduce the price as much as possible and let everybody buy on the same basis. Every purchaser will get **JACKSORINE** of absolutely the same formula, quality and quantity as we sold at $5. **Remember, the price is $3.50 per can, postpaid.** Remit by P. O. order or bank draft to

O. P. WILSON & CO.,

Lock Box 489, Kansas City, Mo.

Percheron Stallion Show; Pages 1, 5, 7, 11, 15 and 17



No. 50—(N. Dak.), Height, 72; Heart, 91; Bone, 11.



No. 57—(Pa.), Height, 71¾; Heart, 83; Bone, 10½.



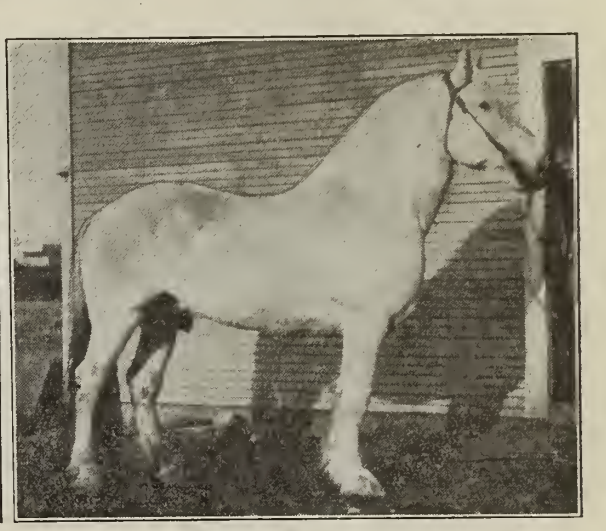
No. 2—(Nebr.), Height, 65; Heart, 76; Bone, 10.



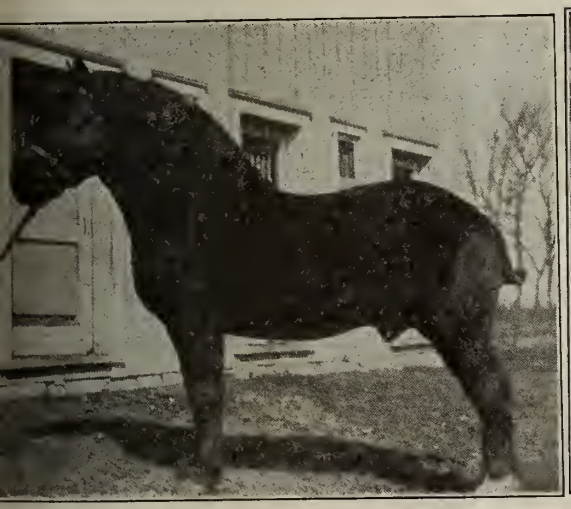
No. 22—(Kans.), Height, 70; Heart, 92; Bone, 12.



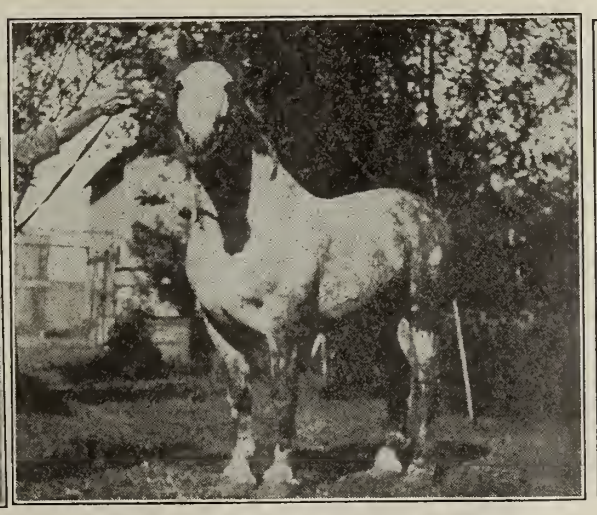
No. 49—(Ill.), Height, 68; Heart, 92; Bone, 11½.



No. 61—(Idaho), Height, 66¼; Heart, 80; Bone, 10.



No. 54—(Ill.), Height, 64; Heart, 92; Bone, 11⅛.



No. 44—(Iowa), Height, 72, Heart, 87; Bone, 10½.



No. 42—(Ohio), Height, 72; Heart, 90; Bone, 10¾.



No. 58—(Ind.), Height, 69; Heart, 89; Bone, 11½.



No. 39—(N. Dak.), Height, 69; Heart, 87; Bone, 11.



No. 28—(Kans.), Height, 66¼; Heart, 86; Bone, 10½.



HUMANE STALLION COLLARS

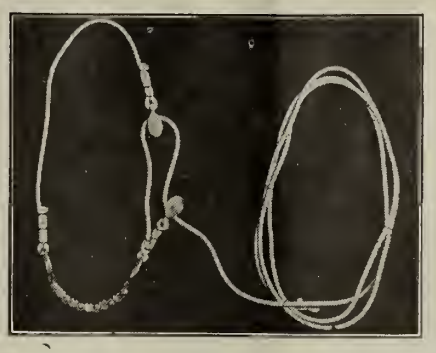
the only kind suitable for working on a stallion. We make them to fit any size and kind of trace. In ordering describe style of hames you use. If single trace hames be sure to state width of trace and length of hame tug from hame to buckle. If you use chain or Moeller hook traces, so state.

Sizes 15 to 25 inches, $7.50 each; larger than 25 inches, 50 cents extra.

TWO WHIPS YOU CANNOT BEAT

No. 10—Heavy, high-test rawhide center, from butt to tip; rubber lined; double waterproof covered, 6½ feet long. Price..$1.00

No. 11—Special Stock Yards Horseman's Whip, full length, 10½ feet; lash 5 feet; 12 nickel ferrules. Price $1.00



"CONQUEROR" STALLION BRIDLE

Guaranteed to Hold Any Stallion or Jack.

This bridle is made of especially selected material. Can be adjusted to fit any size head and for either hard or tender mouths. Just the thing for breaking runaways or kickers. Price, each $2.50

CAUTION:—Never tie an animal with this bridle. If he got to pulling he could split his head.

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KANSAS CITY, MISSOURI

Do You Know Horses

Here is a book that tells you all about the anatomy of **the horse and every other domesticated animal.** Moreover, it contains nearly **600 superb illustrations, many of them full page** and nearly **100 in colors.** It is a book of 826 pages, size 7x10 inches. It is used in every veterinary school in this country. You cannot treat a horse, you cannot breed a horse properly unless you know the anatomy—how the animal is put together. Get this work.

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a big knee like this, but your horse may have a bunch or bruise on his Ankle, Hock, Stifle, Knee or Throat

ABSORBINE
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will clean it off without laying the horse up. **No blister, no hair gone.** Concentrated—only a few drops required at an application. $2 per bottle delivered. Describe your case for special instructions and Book 8 K free. ABSORBINE, JR., antiseptic liniment for mankind. Reduces Painful Swellings, Enlarged Glands, Goitre, Wens, Bruises, Varicose Veins, Varicosities, Old Sores. Allays Pain. Price $1 and $2 a bottle at druggists or delivered. Manufactured only by
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Shying horses all suffer from diseased eyes.

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VISIO Remedy Ass'n. 2475 Calumet Ave., Chicago, Ill.

(Continued from Page 14.)

effect. Especially should all of the matured animals be registered; then the young stock can be registered. Recorded ancestry will soon become an important factor in the jack business.

There is yet time to send and get application blanks, fill them out, and return them before June 1, whether one or many. Every jack or jennet owner should attend to this now. For the small amount of money and time required no breeder can afford to overlook this means of strengthening his business. Send to Wm. E. Morton, secretary, Standard Jack and Jennet Registry of America, 920 Scarritt Bldg., Kansas City, Mo., for the application blanks, which give full particulars for registering. The sire and dam must both be registered in the Standard Jack and Jennet Registry of America before the progeny can be registered, unless rules two and three are complied with. In recording colts on account of registered sire and dam the Standard Registry will not recognize the records of any other association.

Auto Truck Not So Many

In Chicago 54,429 Horse Drawn Vehicles are used, against 4,207 auto trucks and deliveries of all sizes.

To the American Breeder:—Chicago, the second city in the United States, is spread over a territory, approximately twelve miles wide, at its widest part, by twenty-seven miles long. Level streets, which are for the most part well paved, make the city a good one for teaming. All vehicles, whether used for pleasure or business must be licensed, and as the city secures a considerable revenue from this source, there are practically no vehicles used in the city that escape registration and license.

Through the courtesy of the city collector, Edward Cohen, of Chicago, the Percheron Society of America has been furnished with exact data relative to the number of vehicles in use in the city for the years ending April 30, 1911, April 30, 1913, and April 30, 1914. Figures follow:

Table showing number and kind of vehicles licensed for industrial purposes by the City of Chicago:

	—Year Ending— Apr. 30, 1911	Apr. 30, 1913	Apr. 30, 1914
One horse vehicle....	40109	38428	38305
Two horse vehicles...	11640	16728	15851
Three horse vehicles..	331	325	256
Four horse vehicles..	34	20	17
Auto delivery wagons (less than 1 ton)...	436	1680	2448
Auto trucks (1 ton or over)	363	1155	1759

The decrease in one horse vehicles is properly to be credited to the rapidly increasing use of auto trucks less than one ton, which are particularly adapted to light delivery work. The decrease in two horse vehicles is attributed by the men who are best informed on team requirements in Chicago to be due to the elimination of light pairs which are used for delivery work by the large department stores and to the reduction in light pairs owned by well-to-do persons who used them for pleasure purposes. The closing out of a large number of livery stables and consequent sale of driving pairs owned by them, is responsible for several hundred other horses, so that it appears certain that the reduction of 1,789 two horse vehicles which has occurred between April 30, 1911, and April 30, 1914, is due to causes just noted and not to any reduction in the number of draft pairs in use; in fact, it is the judgment of some of the best informed horsemen at the Union Stock Yards, after a review of the above figures, that there has actually been an increase in draft pairs. It is also estimated by those who are particularly well acquainted with the use of auto trucks in Chicago, that the gasoline propelled business vehicles have displaced a little more than 10,000 horses.

The auto trucks over one ton are not nearly as numerous as is probably supposed, for as noted above, there are but 1,759 in use in Chicago. The firms using these have found by experience that they are profitable only on rather long hauls, five miles or over, and on work at which they can be kept in continuous operation. Short hauls with frequent stops and duties which require the vehicle to stand at rest for any length of time, are not favorable to economical use of auto trucks, and for this reason they have been abandoned by a great many firms which undertook to use them. There is no question but that the use of the heavy trucks will increase, however, but the line of work in which they are most efficient is long haul delivery of heavy loads in which they are more properly competitors of the railroads. The actual figures and close observations by men who are particularly well informed on city teaming conditions, indicate that there is no likelihood of a serious curtailment in the city demand for high class draft horses.—Wayne Dinsmore, Secretary Percheron Society of America.

FEED AND TRANSPORTATION COST FOR PANAMA-PACIFIC INTERNATIONAL EXPOSITION.

To the American Breeder:—When a breeder begins to lay his plans to show his animals or birds in the Panama-Pacific International Exposition, the first questions that concern him are those of the cost of transportation to the Exposition and of feed at the Exposition.

By action of the Trans-Continental Freight Bureau, all animals intended for exhibition from its territory on which full freight rates have been paid to the Exposition at San Francisco will be returned free of charge over the same routes. On animals which have been sold at the Exposition a refund of 25% of the freight money already paid will be made by the railroads. These are the most liberal concessions that have ever been made for the benefit of any great Exposition by the railroads.

Animals which are concentrated into train loads of ten cars or more at some central shipping point will be placed under the direct supervision of the Transportation Department of the Panama-Pacific International Exposition and run through to San Francisco on a special schedule, thus insuring a quick transit and low cost.

The breeder will therefore ship his animals direct to San Francisco and prepay the freight on them at regular rates. After the Exposition he will be given a certificate which will entitle him to return his animals over the same route to the point of shipment free of charge. If his animals have been sold, however, then the railroad companies will refund 25% of the freight money which he paid on his shipment to San Francisco.

The Department of Live Stock of the Panama-Pacific International Exposition will supply all feed stuffs to the exhibitors of live stock or poultry without profit and thus protect them against extortionate charges and save the trouble of individual feed contracts.

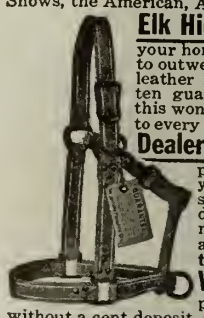
As the coast region of America is comparatively new in a pure bred live stock sense, it is a question of interest as to what the cost of maintaining animals and birds of the various classes during the Exposition will be.

(Continued on Page 18.)

HOW TO GET THE GREATEST HALTER VALUE EVER OFFERED

Send No Money

For over three years almost our entire output of **Elk Hide Leather** has been made into halters for City Fire Departments, Buffalo Bill and Sells Floto Shows, the American, Adams and U. S. Express Co



Elk Hide will not harden or crack. It will not cut or chafe your horse's head. We guarantee it to outwear any two ordinary black leather halters ever made. A written guarantee and a test sample of this wonderful leather are attached to every **"Never-Break"** halter.

Dealer's Price is $3. everywhere but with parcels post direct to your door, if you order from us, we can save you the two profits your dealer and the jobber ordinarily get. We will send you a sample halter **direct from the factory for $1.50.**

We Ship On Approval postage paid to your door without a cent deposit and you may be the judge. By wrapping 4 halters in one package the cost of postage is much less. Taking advantage of this we **can send you 4 halters for $5.00.**

Send your order direct to the factory. Just say:—"Send me (1 or 4) Elk Hide Never-Break Halters by parcels post on approval all charges paid. I will send the money or return halters within a week."

Write now, before you forget it. A postal will do

Recent Buyers--Hundreds of Them Are Writing Us Just Such Letters as the Following:

I received the halters O. K. They beat any halter that I have ever run across. As I use from 15 to 25 halters every spring on as wild mules as a halter ever was put on, I ought to be some judge. Look for more orders.—W. E. Geren, Bancroft, Kansas.

We received the halter O. K. and think it is the best halter we ever purchased. We are enclosing check and would like to have three more sent at once.—A. F. Clark & Sons, Bryan, Ohio.

I like the one halter so well that I want four more at once.—F. R. Sand, Ethan, S. D.

Please find enclosed my check on First National Bank of La Junta in payment for the halter you sent me for examination and approval. I think it an extra good article for the price and is worth $2.50 or $3.00. All stockmen say they like it very much.—M. A. Lee, La Junta, Colo.

I am more than pleased with the halter and it is a much better halter than our local dealer sells for $2.00.—Alva J. Rice, Danville, Iowa.

THE LEATHER PRODUCTS CO.,
1305 Acoma St., Denver, Colo.

Percheron Stallion Show; Pages 1, 5, 7, 11, 15 and 17



No. 33—(Ill.), Height, 69; Heart, 94; Bone, 10½.



No. 35—(Ohio), Height, 68; Heart, 86; Bone, 10.



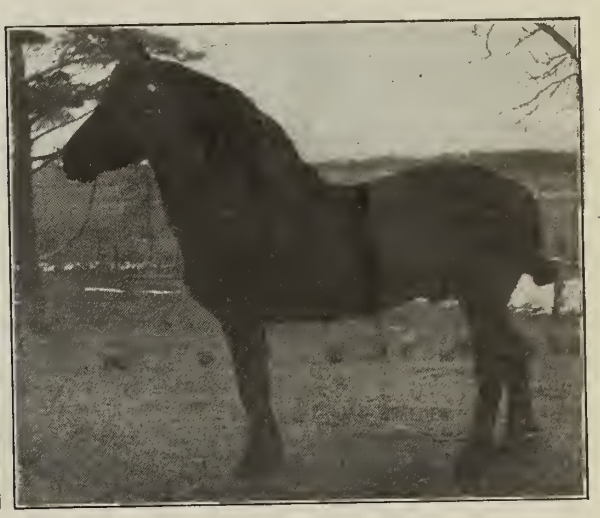
No. 41—(Iowa), Height, 67; Heart, 86; Bone, 10½.



No. 4—(Kans.), Height, 71; Heart, 89; Bone, 10¼.



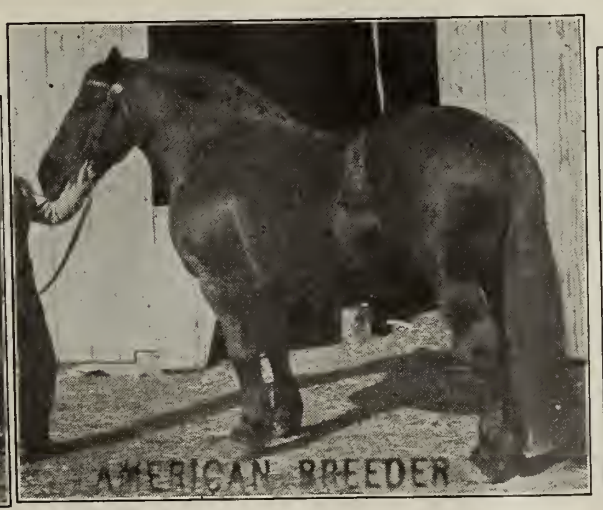
No. 14—(N. Dak.), Height, 66; Heart, 83; Bone, 10¾.



No. 48—(Wis.), Height, 68; Heart, 84; Bone, 10½.



No. 37—(Pa.), Height, 72; Heart, 87; Bone 10½.



No. 3 (Okla.), Height, 67½; Heart, 90; Bone, 11.



No. 25—(Ind.), Height, 68½; Heart, 86½; Bone, 10½.



No. 55—(Nebr.), Height, 68; Heart, 93; Bone, 10¾.



No. 23—(Okla.), Height, 70; Heart, 89; Bone, 12.



No. 6—(Nebr.), Height, 68; Heart, 118; Bone, 10½.

ADVERTISING BRIEFS

Wm. P. Gannon, Valeria, Iowa, has 65 grade Percheron mares for sale from one to fifteen years old, at reasonable prices, as he is short of pasture.

Woodlawn Farm, Sterling Ill., have two and three year old Percheron stallions for sale at reasonable prices. Any one in the market should not fail to write them.

H. Lefebure and Sons, the Belgian horsemen at Fairfax, Ia., write us that their latest importation of 20 Belgian mares arrived on April 16, all in good health and in fine shape; they have the size and quality desired. They are matched teams in any color; they are of breeding age 3 to 8 years old, and what is best of all there are 10 that are in foal to drop imported colts. We now have 30 Belgian mares of breeding age, all for sale at reasonable prices. The new importation of stallions which arrived March 25, together with those importations last fall makes a large collection of stallions for our May and June trade. Parties in need of good Belgians or Percherons will be pleased upon seeing our collection.

The Standard Oil Company recommends one grade of oil for lubricating all makes and types of motor cars and lubricating experts give reasons, as follows: Motor lubrication is the most important consideration in the maintenance of an automobile but it is surprising, say those who are in the business, how few motor car owners give the question any really serious thought. Oil is oil to most people, few realizing the care, science and facilities employed in the production of it. Poor oil is the cause of hundreds of thousands of dollars worth of motor car deterioration every month, for poor oil or unsuitable oil is the next thing to no oil at all. Leading experts of the Standard Oil Company say the rapid deterioration of a motor used in motor car and motor truck service, that begins to go to pieces the second or third year, can be traced to inferior or unsuitable lubrication in the majority of cases, for it is the oil that counts. Nearly everyone knows, allowing for difference in design, that the leading makes of internal combustion motors of today are practically standardized—they operate practically the same—they need practically the same grade of oil except in cases of old and badly worn motors and other unusual conditions. The Standard Oil Company produced several grades of oil and recommended them for different types of motors years ago; for until motors were generally standardized, there was need of several grades.

J. C. Robison, Towanda, Kans., announces a public sale of Percheron brood mares and Holstein cows and heifers, to be held on his farm, June 11. Send at once for a catalogue, mentioning the American Breeder.

Sal Vet, made by S. R. Feil & Company, Cleveland, Ohio. is one of the live stock remedies which is standing the test of time. Read the absolutely fair basis on which the manufacturers offer this remedy to the public. The advertisement will be found in this issue.

The Terre Haute Veterinary College, 260 South 3rd St.. Terre Haute, Ind., starts its advertisement in this issue. Mention the American Breeder when writing for catalogue.

Andrew J. Aaby, Hayfield, Minn., is advertising a 200-acre stock farm to trade for other land in Northern Minnesota. Read the advertisement.

B. S. Harper, La Rose, Ill., is offering some good values in young stock in Percherons, Belgians and Shires. Imported and home bred stallions always on hand.

Olathe Pony Farm, Olathe, Kans., is offering some bargains in Hackney and Welsh ponies, all from imported stock and high class. The advertisement appears in this issue.

W. F. Corbin, Corder, Mo., wants to trade a jack for a high grade Percheron filly or a good registered Shorthorn cow, or will sell him cheap, as he is using capsules and only needs one.

Henry Obermann, Freistatt, Mo., has big mammoth jacks and jennets for sale at a bargain. He also has Poland China hogs, bred sows, boars old enough for service and pigs.

Georgia Chamber of Commerce, Atlanta, Ga., wants a practical hog raiser to join Georgia land owners in a hog raising enterprise. Look up the ad.

Geo. Eggert, Newton, Iowa, has Percheron, Belgian and Shire stallions and mares for sale at reasonable prices, and invites inspection of his stock.

W. L. Graham, Mackville, Ky., is advertising a registered saddle stallion, two Percheron stallions and ten jacks in this issue for sale at reasonable prices. See the ad.

Hog Breeding; Lesson VIII

KEEPING THE HERD HEALTHY

Editor's Note:—So many of our subscribers have written us of their interest in hogs, that we are continuing, in the following article, a series of "lessons" on hog raising. This material is based on the knowledge of practical men and the best trained observation and experimental data. The reader will, of course, need to give all the additional study he can to the subject, but these lessons should serve well as a general guide and a foundation on which to build.

Disease is without question one of the greatest drawbacks to profitable pork production. The most dreaded of all diseases to which the hog is heir is, of course, hog cholera. An April, 1914, report (Farmer's Bulletin No. 590), from the United States Department of Agriculture, gives the losses of swine diseases as 119 to every 1,000 hogs in the country. They also state that "probably more than 90 per cent of this loss was from cholera. The percentage of loss applied to the estimated number of hogs on Jan. 1 indicates a total loss of 7,005,000 head, which at $10.40, the value per head at that time, shows a loss of $93,000,000." The above figures emphasize the great loss which disease has caused the hog raisers or in other words the farmers of this country.

Now it is not the object of this short article to discuss hog cholera as a disease. So much is being written and said along this line that information is available to all who are interested. The very fact that hog cholera and methods of fighting it with serum is demanding so much attention is apt to result in overlooking other essentials necessary in order to keep the herd healthy.

It is a well recognized fact that a healthy, thriving animal will resist and throw off diseases which would quite often prove fatal to animals less healthy. In other words, much may be accomplished by feeding, care and management in keeping disease out of the herd even though the disease may be a contagious or infectious one.

In keeping the swine herd healthy, then, proper feeding is essential. The animals should receive a balanced ration. In other words, they should be supplied with a ration which contains all the nutrients needed for proper development of all parts of the body. If such a ration is fed the relation of muscle and bone building nutrients will be in proper proportion to those producing only energy and fat. A balanced ration will also keep the bowels in good condition which is very essential to good health. The animals must also get plenty of exercise without which they cannot be in the best condition to withstand adverse circumstances. Small pens and quarters are not conducive to health. Plenty of range should be given.

In addition to proper feed and exercise the animals must be kept free from both internal and external parasites, i. e., worms and lice. No hog can resist disease to advantage if he is weakened by being infested with parasites.

The following formula is a good worm preventive and conditioner:

Glauber salts.	3 parts
Sal soda.	3 parts
Copperas.	3 parts
Common salt.	3 parts
Sulphur.	1 part

The above ingredients should be pulverized, well mixed (by weight rather than measure) and kept constantly before the hogs in small boxes or troughs. This mixture not only helps to keep down the worms, but supplies ash or mineral matter which is often lacking in corn belt rations. Charcoal may also be added to the above.

If it is desired to give the hogs a specific worm expeller, one-half teaspoonful of copper sulphate for each 100-pound pig is good. Before giving any vermifuge the hogs should be allowed to miss one or more feeds so that they are good and hungry and have their stomachs empty. Mix the drug with a little cornmeal or bran and then mix this into the slop. For best results, pigs of the same size should be fed together and not too many in a bunch in order that each pig will get the dose meant for him. If one-half teaspoonful does not seem to give results, repeat the operation in a week or so, doubling the dose.

Dipping is perhaps the best way to remove lice. Where the hogs cannot be dipped, a spray pump works very well. Most any of the coal tar dips usually give good results. Rommel of the U. S. Dept. of Agriculture recommends a 2 percent solution of creolin as a cheap and efficient dip. Crude oil is also good and very cheap.

And last but by no means least, the animals' quarters should be kept sanitary. This means that the premises should be kept scrupulously clean of filth of all kinds. Disease germs thrive best in dark filthy quarters. Sunshine and thorough cleaning keep the development of disease germs down to the minimum. This also will apply to lice and worms. A liberal use of air slacked lime is a very efficient disinfectant when scattered over the ground and floors of the hog quarters. The walls, partitions and fences may be sprayed with a 2 percent solution of creolin or lime may be applied as a whitewash. If every hog raiser would appreciate the importance of sanitation more effective work could be done along this line in eradicating cholera than by use of serum.

Prevention rather than cure spells financial success to the hog raiser. If hogs are properly fed, given opportunity to exercise, kept free from lice and worms and supplied with sanitary quarters, much disease will be prevented.

AFTER THE "WILD CAT" SERUM PLANTS.

To the American Breeder:—This association earnestly requests your strongest editorial support in campaign instituted by us to insure a supply of reliable hog cholera serum for the herds of this country. We want you to begin a movement for proper state inspection, regulations and control of all commercial laboratories engaged in the manufacture and distribution of hog cholera serum operating without a federal license.—United States Live Stock Sanitary Association, Chicago, Ill.

Below is the resolution on hog cholera serum manufacture, passed by the above named association at the time this letter was sent out.—Editor.

Whereas, Hog cholera gives promise of being extremely prevalent during the coming season, and

Whereas, Reliable Hog Cholera Serum as produced under the Dorset-McBride-Niles system is of great value in controlling and suppressing the disease;

Whereas, It has come to the knowledge of this Committee that many Hog Cholera Serum Plants are in operation in various States which Plants are not licensed by the U. S. Department of Agriculture nor under Federal or State supervision;

Whereas, We believe there is much Serum being placed upon the market, which may be absolutely unreliable and a detriment to hogs upon which it is used;

Whereas, Attention has been further directed to the placing on the market of fictitious Serum, which in some cases is known not to have contained any animal serum; therefore be it

Resolved, That all state authorities be advised to adopt regulations whereby all Hog Cholera Serum Plants may be inspected and their products supervised and when so supervised their products recommended as consistently as may be deemed advisable by State Officials.

PANAMA PACIFIC EXPOSITION.

(Continued from Page 16.)

A careful investigation based on the average cost of feed stuffs for a period of years gives the following results:

	Approximate
Sheep, per month	$ 5.00
Hogs, per month	5.00
Beef cattle, per month	10.00
Cows in milk, per month	15.00
Horses, per month	12.50
Poultry per month	.20

Bedding for horses and cattle, where straw is used, about 8 cents per day each.

In preparing these figures an effort has been made to strike a general average.

Ensilage will be provided in the silos of the Department of Live Stock as well as cabbage for sheep and other special feeds.—I. G. GRAHAM, Asst. Chief of the Department of Live Stock, Panama-Pacific International Exposition.

BURNED FORTY HORSES.

A livery barn belonging to McDavid Brothers, in Excelsior Springs, Mo., burned recently, destroying 40 horses. Among the horses destroyed were several gaited saddlers and several Standardbred harness horses that have campaigned in the Missouri, Kansas and Oklahoma fair circuits.

Be an Auctioneer

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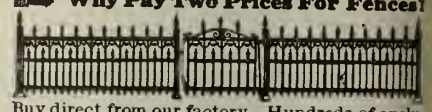
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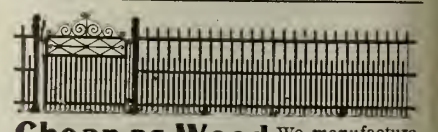
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A Cistern Above Ground

An abundance of soft water is a great aid in solving the labor problem of housekeeping. With the general use of concrete there has developed a new style of cistern which further lightens the work of the housewife. This new concrete cistern is built on top of the ground and, by direct pressure, forces the water through pipes into the house and does away with the work and exposure of pumping and carrying water. The piping of the water allows the cistern to be located to the best advantage. Since the roof water from out buildings is free from soot and other impurities, many persons prefer to build the cistern at the barn, granary, or corn crib. The cistern shown in the illustration is placed on a three-foot terrace in the rear of the house. The carrying of water is thus reduced to the mere matter of turning a faucet in the kitchen.

The Forms and Foundation.

To illustrate the general method of construction, consider a cistern 8 by 8 feet square in the clear and 8 feet high with 6-inch side walls and floor and 4-inch roof. Such a cistern holds 121 barrels of water.

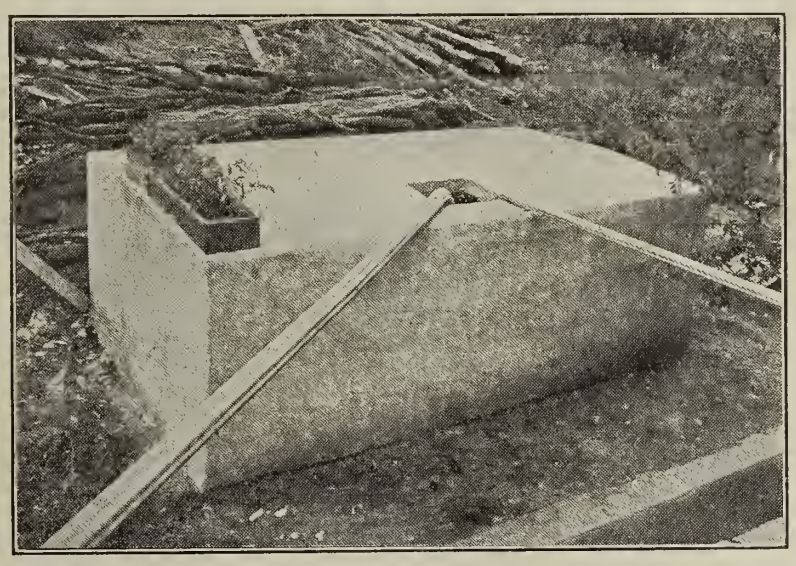
The first step in building a cistern is to have all materials on hand before beginning the work. Make the forms or molds of 1-inch siding on 2 by 4-inch studding spaced 2 feet. Remember that the siding always goes next to the concrete. Since the floor is 6 inches and the roof 4 inches thick, have the studs for the outside form not less than 8 feet 10 inches in length. The uprights for the inside form must be exactly 8 feet long. As the pressure of the concrete will tend to hold the siding in place, tack it lightly to the studding. Board up the outside form only to height of 3 feet, so as to make easier the handling of the concrete and the placing of the reinforcing rods. Build each side separately in order that the entire form may be quickly erected. See that the forms are joined in such a way as to make their removal an easy matter when surrounded by the solid concrete.

From the site of the cistern strip off the sod and other foreign matter. Do not disturb the solid ground. Three to four feet below ground level (depending upon the depth of freezing) lay a 2-inch house-supply pipe and have the cistern end fitted with a pipe connection set at the concrete floor level and 1 foot from the cistern wall. Carefully imbed the pipe in concrete to the first joint beyond the cistern wall. Thoroughly tamp back the earth removed, so that there can be no settlement underneath the cistern floor. Lay out the cistern 9 by 9 feet, out to out. Within these lines dig the foundation trenches 1 foot wide and 3 feet deep.

Mixing and Placing the Concrete

With the forms ready and the foundation trenches dug, begin mixing the concrete. Proportion the concrete 1 part Portland cement to 2 parts sand to 4 parts crushed rock. Four parts of clean bank-run gravel may be used instead of the sand and stone. In measuring the materials do not guess or count shovelfuls. Measure exact by means of a bottomless box, and count one bag of cement equal to 1 cubic foot. Mix the concrete mushy wet and fill the trenches to a level with the under side of the cistern floor.

To take care of the water pressure, reinforcing rods must be run in both



A FARM CISTERN BUILT ON A THREE-FOOT TERRACE.

directions through the concrete wall. For this purpose, use ⅜-inch rods 10 feet long. While the concrete in the foundation walls is yet soft, set the vertical rods in it (spaced 8 inches) to the depth of 1 foot. Carefully place these rods so as to bring them within 1 inch of the outside of the cistern walls.

Next in order is the concrete floor. Make it 6 inches thick and tamp the concrete well. See that it overlaps the inside of the foundation wall and that the top of the pipe connection is at the floor level. Finish the surface with a steel trowel.

After the floor has hardened for 3 or 4 hours, erect the inside form. To aid in taking down these forms, place removable wedges between the ends of the studs and the floor. Before setting up the outside form, fasten the first four horizontal rods to the vertical reinforcing by means of small wire. These rods are spaced 8 inches apart. The ends must be bent and spliced around the corners of the cistern. Set the outside form and begin building the concrete side walls. Use the concrete mushy wet and work it down next to the wall form with a wooden paddle. Place it in 8-inch layers carried around the entire cistern. See that exactly 1 inch of concrete is between the steel reinforcing and the outside form. As the work progresses, add the necessary boards of the outside form and the lengthwise reinforcing rods. Do not stop placing concrete until the walls are finished.

The Concrete Roof.

While the 4-inch concrete roof is hardening, a temporary wooden platform is needed to support it. Build this platform of 1-inch boards nailed lightly to 2 by 4-inch joists. Let these joists rest on 2 by 4-inch stringers nailed to the studding of the inside form at a distance of 4 inches below their tops, so that when the stringers are loosened the platform will come down. To keep the mushy concrete from wasting, place heavy paper or thin cloth at the edges of the platform. For providing a manhole opening, take 1-inch boards 5 inches wide and build a bottomless frame 4 inches deep, 2 feet square at the top and 18 inches square at the bottom—outside measurements; or have the tinsmith make a round bottomless dish-pan of the same dimensions at the top and bottom. Grease the manhole frame and set it on the platform where the opening is desired. For the down-spout from the roof, make an opening by similar use of a round wooden plug or a short section of drain tile or sewer pipe which may be left in the roof.

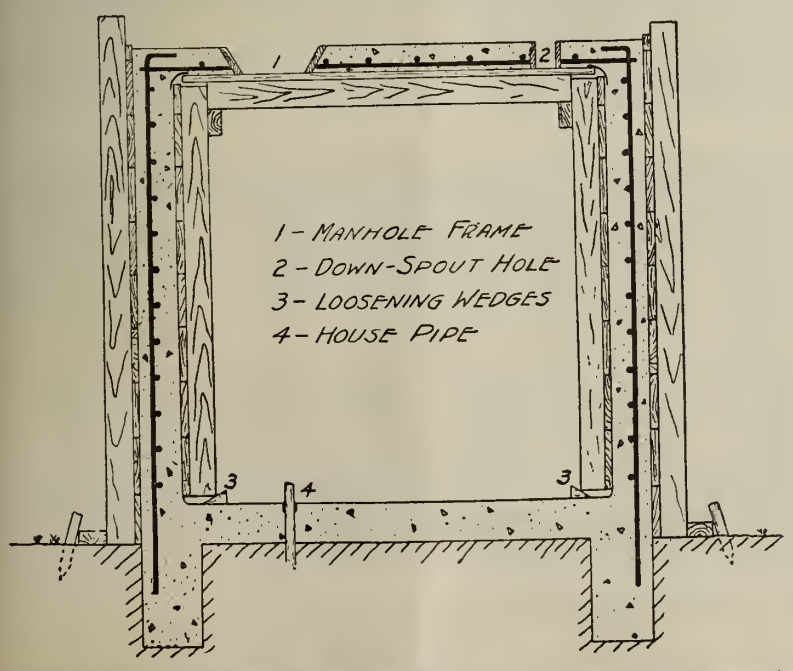
Over the entire platform spread 1 inch of concrete. Quickly place the reinforcing of ⅜-inch steel rods running both directions (criss-cross) and spaced 1 foot apart. Bend the ends to a hook shape and fasten them to the rods in the side walls. Immediately tamp in the remaining 3 inches of concrete. Increase the thickness to 3½ inches at the center so as to shed the roof water. Finish the surface with a steel trowel. If the tin manhole frame is to be used, grease it, set it in place and build the cover along with the rest of the roof. Reinforce the cover with short lengths of rods laid criss-cross and within 1 inch of the bottom. As lifting rings, use two halves of an old bridle bit or two hitching post rings, the ends provided with knobs of twisted wire or with nuts and large washers for holding the bolts firmly in the concrete. If the wooden manhole form is used, carefully remove it after 5 hours. After 3 days build the manhole cover the same as for the tin form, with this exception—place greased paper around the edges to prevent the new concrete from sticking to that part of the platform. When the cistern roof is 3 weeks old, lift off the manhole cover and saw an opening in the wooden platform. Descend, loosen the wedges under the studs and the stringers supporting the platform, remove the forms and pass them out through the opening. To keep the settlings out of the house pipe, screw a 4-inch length of pipe into the joint coupling. Furthermore, the down-spout should be provided with a cut-off, so that the first flow from the roof of the building may be kept out of the cistern. The cistern may be used for water storage after it is 1 month old.

Below is given the bill of materials and a liberal estimate of their cost. By consulting local dealers, it may be found that the cost of the cistern may be reduced.

Materials Required for 121-Barrel Cistern.

Crushed rock 12 yards at $1.10	$13.20
Sand, 6 cubic yards at $1.00	6.00
Portland cement, 21 barrels at $2.50	52.50
Reinforcement (12 rods—⅜ inches by 10 inches) 420 lbs. at 2¼c	9.45
	$81.15

If ornamental f ures are desired, moldings or tile orations may be used. The point t bear in mind is, that an inexpensi cistern located on top of the gro nd provides the country house with he conveniences of a costly city w rworks.



CROSS-SECTION OF CISTERN BUILT ON TOP OF GROUND SHOWING FORMS AND REINFORCING.

PIT SILO PR TECTION.

"Unlike Pharoah o old, the western farmer needs no prophet to tell him that there will be some "lean years" for which it is wise to make provision," writes J. R. H. in the Kansas Industrialist. "Just what provision should be made for feed for the winters following drouths, has been a vexing problem.

"The pit silo now gives promise of being a solution for the problem. From present indications, the number of pit silos in the western part of the state will increase greatly before fall. A number of stock raisers intend digging two of these silos apiece, and one at least plans to construct four. The idea is to fill them in the plentiful years and save one, maybe more, for the year of crop failure. This plan is gaining wide recognition and favor.

"Milo, western orange sorghum, feterita, and other sorghum crops can be stored and easily kept for several years in this type of silo. The farmer thus may have feed for his stock in winter and may deal effectively with one of the real problems of western Kansas."

MISSOURI FRUIT CROP PROSPECTS.

Missouri's fruit crop will be worth a lot of money this year if it suffers no further serious damage. As compared to a "full crop" the prospect now stands as follows: Apples 92%, peaches 31%, strawberries 70%.

North Missouri Loess District (all counties adjoining the Missouri river upstream from Boone county, central Missouri): Apples 90%, peaches 75%; strawberries 90%. Remainder of north and central Missouri: Apples 90%; peaches 70%; strawberries 90%. South Missouri, "Ozark district": Apples 95%; peaches 25%; strawberries 70%.

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To the American Breeder:—I am a subscriber to your paper and think it a great help to the man with breeding stock, as I sometimes get one article that is worth many years' subscription.—J. W. Carr, Wayne County, Okla.

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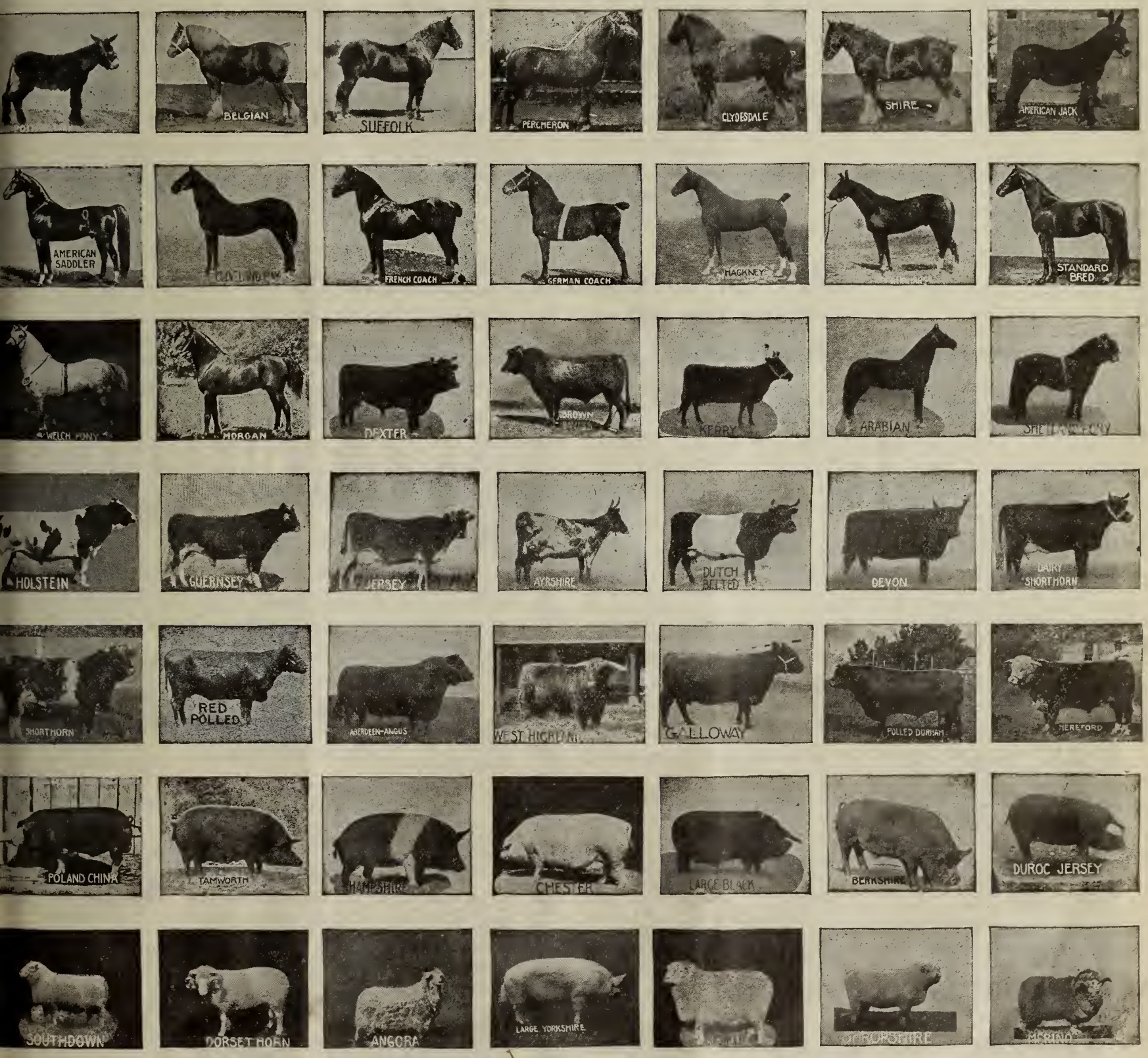
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Volume VII. *Kansas City, Missouri, June 5, 1914* *Number 10*



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JUNE 5, 1914.

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SLEEPING PORCHES.

The average individual does not realize the great value of fresh air. Right now, or any time during the next few months would be an excellent time to investigate this proposition. Practically every house is so arranged that some kind of sleeping porch can be attached. This may be constructed without great expense. It should be screened and some arrangement should be made for rainy weather. Those who try to get a night's rest in a hot, tight room very often get up the next morning without having made much recuperation. After one gets accustomed to sleeping in the open air it is easy to notice the difference.

This is the best and cheapest medicine the average individual can use. It establishes a greater resistance and assists nature to build up the entire system. Plenty of rest in the open air, with nutritious food, has under test, restored to normal condition about 85 per cent of sufferers from the lighter forms of tuberculosis. This treatment has done more for tubercular and nervous trouble than practically any other treatment. One may say that his bedroom is sufficiently ventilated but this is not like sleeping in the open air. There are thousands of people filling themselves full of medicine who could get vastly better results from nutritious food and plenty of rest in a good sleeping porch. A great difficulty with the average nervous person is that the individual may not know how tired he is until sufficient rest has been given.

Now is an excellent time to begin using a sleeping porch. A great many now sleep in sleeping porches the year round. With the beginning of cool weather the nights gradually grow cooler by degrees so that the fall and winter months are easy to get accustomed to. This provision for perfect rest is especially necessary for all those working hard whether it be in the city or on the farm.

A NEW METHOD OF CASTRATING.

The progress of medicine and surgery has been phenomenal. The practicing veterinarian of today is a factor of considerable importance to the live stock industry of any community for he has drugs and the knowledge of their use to combat the various ailments of not only horses, but also cattle, hogs, sheep and poultry and the properly equipped veterinarian has the various instruments and the knowledge of their use in combating those diseases and conditions that can be controlled or relieved only by surgical operations.

The various vaccines and serums have come into general use in controlling infective diseases such as black leg, charbon or anthrax, distemper, hog cholera, etc. On a similar principle to that involved in the production of an immunity against such diseases as black leg, hog cholera and other infective diseases, it has been found that the body tissues will respond to various substances that may be injected into their system, thus the injection of a small quantity of red blood cells from a hog into a horse causes a reaction in the body of the horse. This condition may be demonstrated by the withdrawal of a small quantity of blood from the injected horse allowing it to coagulate then separating the clot from the serum after which a small quantity of red blood cells from a hog is mixed with the horse serum and it will be observed that the red blood cells from the hog will be disintegrated. This reaction consists of the destruction and solution of the same kind of cells that were originally injected into the horse.

Another very peculiar reaction has been observed in this relation. For instance it has been experimentally demonstrated that the injection of liver tissue into an animal causes a reaction in which the injected animal tissues produced a substance or substances that will cause disintegration of the liver cells in its own body. Thus it has also been experimentally demonstrated that kidney tissue may also be disintegrated or any other tissue. It was soon found that testicular tissue may also be destroyed in a similar way.

Some experiments have been conducted especially on dogs to prove the auto castration theory. The following experiment was conducted, the subject being a 40 pound dog about three years of age. This dog was healthy and in good condition. He was injected subcutaneously with a fluid made from grinding 15 grains of fresh hog testicle in a dilute salt solution. A similar injection was given every 5th day until four injections had been made. On the second day after the first injection the testicles were enlarged and quite sensitive. The swelling disappeared on the 4th day after injection. A similar though less extensive swelling appeared after the 2d injection. When the third injection was made the testicles were noted to be much smaller than when the experiment was begun. The reaction after the 3rd and 4th injection was much less extensive than after the 1st and 2nd injection. Five days after the 4th injection the testicles had so diminished in size that no further injections were given. The dog was destroyed some time later and the testicles examined and found to be an atrophied mass of fibrous tissue containing only small areas of true testicular tissue and it is very doubtful whether any sperm cells could have been produced. Other similar experiments were about the same so far as general results were concerned.

It is not to be assumed that all animals on the farm that are usually castrated should be castrated by this method or that this will supersede surgical castration, but some occasional cases are observed where this method should receive a trial.

WHAT OF THE CROPS?

The first of June marks one of the most important stages in the crop history of a season. By this time the probable yield of winter wheat, which is America's greatest ready money crop, can be estimated with reasonable accuracy. Only a very unusual condition can cause any great change after this date. An industrial and business depression which has lasted for many months is causing everybody in every line to await anxiously the movement of this crop, and the improvement in trade and industries which is sure to follow.

Kansas, being by far the greatest single producer of winter wheat, holds the center of the stage among the states. Continued favorable weather conditions throughout most of the Kansas wheat belt has caused a constant increase in estimates since last fall, beginning with 100,000,000 bushels and reaching finally, in the latest stories, as high as 200,000,000. At this date, however, the estimates based on actual knowledge or investigations, do not often exceed 170,000,000 bushels. There are still chances for partial disappointment, but each day the hope grows stronger that the fullest expectations will be realized. The world has never seen such a crop from a single state, and what is true of Kansas is also relatively true of Oklahoma so far as favorable conditions are concerned. It is said that 82,000 men, in excess of the normal working force in the wheat states, will be needed in harvesting the crop.

Conditions in other wheat producing states will average normal so that this year's national winter wheat crop is almost certain to make a record as to quantity, and average yield.

The increased wheat acreage has, in many sections, resulted in a decrease of corn acreage, but corn conditions have been generally quite favorable so far. A few notable exceptions reported in the last few days are in localities in which the army worm has appeared. So far, the damage from army worms is not known to be wide-spread, but the distribution of reports makes barely possible a more serious development soon. Growing conditions are so generally favorable, however, that tbe invasion may prove only a check, even in the localities where it is the worst. Army worms appear to attract first blue grass, timothy, corn and other plants of the grass family, and unless the worms get very thick, the clovers, alfalfa and other legumes are apt to escape damage.

Almost as great a factor as wheat or corn in the final agricultural prosperity is represented by our live stock feed crops—oats (in Missouri, Kansas and South), tame hay and pasture. Their progress so far has been relatively as favorable as the ones already named, and as a good season for them means increased live stock and better maintenance of soil fertility, in addition to the immediate profits realized, their present fine condition is doubly gratifying. With the surplus wheat for the necessary ready money, and the better pasture for better maintenance, live stock improvement in much of the West is "in a better way" than it has been for years.

See Pages Six, Seven and Eight for Nine Columns of the Most Important Information in this Paper. It Means More Business for You Next Season.

DISPOSING OF SCRUB STALLIONS.

Those who expect to maintain high class sires should ever be on the lookout for scrubs. Very frequently one of these horses can be purchased cheap enough that he may be castrated and sold on the market. It may be necessary to have someone else buy him. There is very little danger of castration after the weather gets cool. After a stallion has healed he may be broken to work and sold as a draft gelding. Even if a little money should be lost in the transaction it might be profitable in the long run. Quite frequently a scrub horse is kept in a community because the owner does not know what to do with him and would be glad to dispose of him at a reasonable price. Horse buyers do not like to buy them because they are not ready for immediate shipment. There may be other opportunties to dispose of them in supplying someone with cheap range stallions. There is frequently, also, too many stallions in one community. A little advertising might find suitable buyers for some of the stallions and have them moved to another section where they could be of some use. Those who expect to remain in the business should be posted on all of the stallions and jacks in the country. Try to get rid of all unnecessary competition. This can frequently be done to a good advantage. There are entirely too many misfit scrub stallions standing for public service over the country. The best way to eliminate the scrubs is to adopt the capsule system with a good sire. This takes time but it gets results. When ten mares can be bred at each service, the price can be made low enough to compete with the scrub prices and then there will be no use for scrubs.

KEEPING THE STALLION RIGHT.

In a short time the breeding season will be over and the great problem of keeping the stallion between seasons will be on. The majority of these animals will be stowed away in a box stall where their system will get out of order and the temptation for bad habits will be great.

After a careful study on this subject we have decided that a good pasture is the best place to keep stallions and jacks the year round. This enclosure should be large enough to have some grass in it. Several different varieties should be sown so as to have green pasture the year round if possible. It is not advisable to make a change until the breeding season is closed. By starting the sire in the summer time he could run in this pasture the year round and give the best possible results. The fence should be substantial. The pasture may either be made square or longer one way than the other. If the stallion or jack is inclined to run, an inside fence should be erected about four feet from the main fence. This should consist of one pole three feet high, bolted on posts. This will keep the animal from running into the other fence. Should he slide or roll under the fence he can be led around to the opening and released without injury. The posts and all fencing material sbould be smooth to prevent injury. A small separate barn should be built on the north side away from other buildings so there will not be

any danger from fire. This barn should not have any door. Let the stallion run in and out at his pleasure. Let him get accustomed to the cold weather by degrees then he will not have any colds. The exercise and open air life will give him a greater resistance to diseases. His constitution will be much better.

When the breeding season begins next year there should be very little difficulty about his being a producer. We have received so many complaints this year from stallions which have been housed and pampered. Something must be done. Too many valuable stallions are being ruined for the want of fresh air and exercise.

No breeding or teasing should be done in this enclosure. All mares in heat should be kept at a reasonable distance so that the stallion cannot see or smell them. Too many good stallions are being ruined by masturbation. No one can afford to encourage this habit. This pasture might be placed in sight of the highway; it would be a good advertisement. Care should be taken to prevent other animals getting near enough to aggravate this stock or to get infectious diseases. In the corner of such a pasture or some suitable spot should be made a place to wallow. This should be kept smooth. This is more especially necessary with jacks. Hard lumps should not be allowed to accumulate. The average stallion or jack will keep his stall clean under this management. The bed, however, should be taken care of. A barrel of water should be fastened in a good place so that the animal can drink at his leisure. A feed box can be arranged so that any member of the family can do the feeding without going in the barn. Exercise, fresh air and sunshine are all very cheap, but essential.

HORSE IMPORTATIONS IN 1913.

Nearly 3,000 pure bred breeding horses were imported to this country in 1913, the exact numbers being 1,733 stallions and 1,264 mares. In this total ten breeds are represented. The names of the breeds and the number of animals of each are shown in the table below. The Bureau of Animal Industry, Washington, D. C., has on file the description, name, record, number and pedigree of every one of these animals and each year in this bureau's records, are written the full facts about every pure bred breeding animal imported. The table referred to is as follows:

Breed.	Stal.	Mares	Tot.
Belgian.	621	362	983
Clydesdale.	45	53	98
Hackney.	14	29	43
Percheron.	882	600	1,482
Shetland.	4	26	30
Shire.	128	57	185
Standardbred.	1	2	3
Suffolk.	12	26	38
Thoroughbred.	14	14	28
Welsh Pony	12	95	107
Total.	1,733	1,264	2,997

TO THOSE WHO ORDERED CUTS FROM THE STALLION CONTESTS.

A number of our readers who took part in the Belgian and Percheron Stallion Shows have ordered the cuts of their stallions sent to them, in accordance with an offer we made at the time the issues containing the "Stallion Shows" were published. We have delayed shipping these cuts for the reason that we will probably want to publish again the pictures of the ten stallions of each breed which the judges select as the best animals. These might include some of the cuts that have been ordered. As soon as these selections are made the cuts of the fortunate ones will be published, and all cuts that have been ordered will be sent at once.

What is the Use?

A breeder who has been reading the American Breeder for several years was visited a short time ago. He did not know who the visitor was. The object of making this and other visits was to see what progress was being made by the readers of this paper. This man is well fixed financially and has good stock, but is not progressive; he is following the same old systems, without any changes.

In his breeding operations the mares were led up to the teasing pole and if in heat they were opened up and bred. He made no pretense at washing his hands before the opening process. No examinations of any kind were made. Every mare was bred that was presented, although some were seriously diseased. On occasions he would breed as many as four mares in one day to one sire. The writer was impressed with the large number of mature mares that came to that barn without any colts by their sides.

After having made all the investigation necessary an introduction followed. A large number of apologies also followed. The breeder gave as the principal reason for not having things in a better condition, that he was too busy. A careful examination of the books at this barn showed that for the last four years five and a half services had been made for each live colt collected for. The breeder was a man of good personality or he could never have held his business under those conditions. He also had good stock and the breeders wanted colts from such sires as he owned.

We are wondering how many of our readers would be glad to have a visit under similar circumstances. A little time and study would have changed things at this barn wonderfully. One would naturally believe that the financial end of the game would make the breeder want to get things in a better condition. This one stated that there is very little money in the breeding business, yet he has a very large territory with practically no competition, and containing a lot of big, fine mares that ought to be raising colts.

What is the use of this man following our extensive investigations, and keeping track of our efforts to find out just what is the best to do, from those who have made a success in the business, if he does not try to improve with the opportunity? Just a little effort would have more than doubled the per cent of foals at this barn. Does this breeder realize just how much money he is losing for his friends and customers? Thousands and thousands of dollars are going to waste through such carelessness. One of these days some successful breeder will come into his locality and run him out. Then he can look back and see where he has made his failures through carelessness.

We do not wish to mention any names in these cases, but we are tempted to name this man as an example for others. This man states that he is very busy, but he has no other business. He occupies a chair with a cushion in it most of the time. The man who expects to be an up-to-date breeder must look after his business, especially during the breeding season. There are many things that need close attention.

Another breeder was visited who is making a success of his business. Every reader of the American Breeder would recognize a lot of things that this man has put into practice. Before we got close to his barn we saw a hitch rack where all of the horses and mares must be tied, which gives his an opportunity to inspect them before they come near the barn. He had a long teasing pole where the mares were tried so that he could tease them without going near them. He stated that he could get a better natural test in this manner than by taking them up to a teasing pole. And it did not interfere with the stallion. He had a place where a mare was led in so she could not kick. Just behind this mare he had things arranged so that he could keep clean. A careful examination was made of every mare that came there. After all the necessary investigations were made we studied his record books for last year which showed that for every two services made a live foal was collected for. This year the colts had not all been accounted for, but he expects to collect at the rate of one colt for one and a half services.

This breeder says the business is profitable. He is keeping up to date and increasing the number of mares. Mares are brought past other stallions to his place to be bred, because the owners are not afraid of disease under his methods. And the best part of it all is that he gets the mares with foal. His premises are so arranged that the work is easy. He breeds a third more mares than the other man does, with half the number of sires, and everybody is satisfied. Is it worth while to get familiar with the breeding business? Are you one of the breeders who reads but does not heed, or are you using the knowledge you have obtained?

GETTING RESULTS FROM ADVERTISING.

Occasionally we receive a letter from an advertiser stating that a good many men wrote him in answer to his advertisement but nobody came to see the animals he was advertising. A majority of the letters of this sort are poorly written and this fact suggests one of the reasons why inquirers were not attracted to investigate further what these men had to offer. It frequently happens, of course, that a prospective buyer, in order to save time, writes to several advertisers and then first visits the one who has most nearly what he wants. Those advertisers who do not hear from him again may have priced their animals too high for his needs, or they may have failed to give him, in good shape, the information he asked for, or they may have written him so poorly that he did not feel like following the matter up further.

There is nothing more important in securing a customer through advertising than the writing of good, plain, satisfactory letters in answer to all inquiries. A great many good breeders and farmers, as well as a great many men in other lines of business, are poor penmen, and busy men do not have time to take a course in penmanship. In lines of business where a great deal of writing has to be done the use of the typewriter is, of course, universal, but in business requiring less correspondence the cost of a new typewriter of standard make is generally prohibitory.

It has always seemed to us that rebuilt typewriters capable of doing for years all the letter writing on an average farm or breeding establishment ought to be bought for a half or even a third or a fourth of the regular price of new machines. We have several times taken this matter up with typewriter agencies in this city, but their business is with city trade and they claim they do not have facilities for selling throughout the country. A typewriter supply company in Chicago, however, has decided to specialize in selling to breeders and farmers, and has selected the American Breeder as one of the mediums for carrying its advertising. We are not mentioning this fact with a view of aiding this advertiser, but rather because there is a wide-spread need for better business methods, and we believe that typewriters offered at prices our readers can afford to pay will prove one of the best means of bringing about this improvement. We are sure that many of our readers will find it to their advantage to buy and use typewriters, now that standard machines can be bought worth the money.

DIAGNOSING PREGNANCY.

To the American Breeder:—During the last few weeks I have given this subject considerable attention and would like to mention a couple of cases that have come under my observation. At Bokoshe, Okla., during the second week in April, a Mr. Brashears of Panama, Okla., brought in a mare. He had bought the mare this spring. Her former owner said she had been bred but he did not think her in foal. Mr. Brashears said frankly he did not know, but if she was not that he would like to breed her to the jack.

It was within a few minutes of 2:30, my regular breeding hour, and, as usual, several of the local "stud horse" men were on hand to watch my examinations and utilize any opening to poke fun at modern methods. I took the mare to the teasing chute and without any preparation for scientific work brought out the teasing stallion. At the first touch of his nose the mare showed signs of heat. There was a unanimous voice that she was "in heat." While the rest had noticed that she urinated I noticed not only that, but also HOW she urinated. And, according to the instructors at the Graham Scientific Breeding School, this kind of urinating denoted excitement and NOT desire for the horse.

While the mare was willing to take the horse still I thought her wrong some way. I said: "Boys, I think she don't want him now," and was greeted with a laugh all around. So I asked them to test her as to whether or not she was in foal. They all made their tests—thumping, listening, feeling the gristle of the neck, feeling the udder, etc.—and all, even to old Dr. Baker, who says "The old way is still the best," said she was not in foal and to breed her.

Then I tied up her tail and made ready for an examination. When I dropped my hand in the right place there was the head of a foal about nine months old. When I touched him he kicked and all the others saw that kick from the outside and knew she was in foal and their loudly spoken judgments had been wrong. Their grins died on their faces and in the whole bunch Mr. Brashears was the only one who smiled back at me, for in not breeding the mare I had probably saved him a colt. In the next week about ten men brought their mares to Bokoshe just because Mr. Brashears had told of that examination.

The other case was with a highly bred trotting mare owned by Miss Anna Hunt of Fort Smith, Ark. This mare was bred twice last season to "King Directum," and according to those who cared for her had not "caught." The owner of King Directum had spoken to me of this mare several times. So, on April 28, I was pleased to see her come to the barn. To all outside appearances she was not in foal and the attendant told me she was in heat.

At the teasing pole she showed signs of being in heat, although she did kick a little as many of these hot blooded mares will. Miss Hunt's man, who knew the mare well, said she was in heat. The regular attendant of King Directum said he could breed her all right. The owner of King Directum, however, had said for me to examine all mares to ascertain their health and breeding qualities. When I placed the speculum in this mare I saw her cervix was in the position denoting pregnancy. So I made a rectal examination, and there, under

my hand, was the head of a foal worth $25 to the stallioner and $100 to the mare owner the minute he stands and sucks. Without the examination the mare would have been bred and this colt probably aborted.

These are but two examples of what the month's examinations in Arkansas and Oklahoma showed the mare owners and old "stud horse" men. I think by another year these stallion men will see that the mare owners are demanding a scientific man to handle their mares in order that they may be protected, not only from disease, but also from ignorance.—Elliott S. Humphrey, Jackson County, Mo.

SUGGESTION FOR FUTURE STALLION SHOWS.

Since closing the entries for the "Percheron Stallion Show," and, in fact, even since the publication of the photographs of the stallions accepted for entry, we have received quite a number of photographs and measurements which are, of course, too late to be used.

We are glad to have this evidence of wide-spread interest and hope that when the next "Stallion Show" is announced. our Percheron and Belgian friends, and others who have been instrumental in making previous "shows" a success, will call the later "shows" to the attention of those having animals eligible to entry and give them the benefit of past experience and observation in securing satisfactory photographs and sending them to us in plenty of time.

INTERESTED IN BREED HISTORY.

To the American Breeder:—I have been interested in the "Horse Shows" in the Breeder, more so in the Belgians as they are my favorite among the draft breeds. I was very much interested in the article written by our Texas correspondent. Would like to hear more of the history of the breed through the columns of your paper. I was talking to a friend of mine a short time ago and he thinks that the Belgian horse is a cross bred horse of Norman and Clydesdale blood. Some men are hard to convince of the truth. I would like a copy of your paper of May 5th to hand to him. I don't want to give him the one I have as I don't want to break my files.—J. E. Downing, Davis County, Iowa.

EDITOR'S NOTE.—If Mr. Downing can get his friend to read the American Breeder regularly he will soon be better informed as to the origin of breeds.

FROM A SUBSCRIBER IN CUBA.

To the American Breeder:—I see an article in the American Breeder concerning navel ill in young stock. I am raising cattle and mules and have about 150 new-born each year. I use creoline for a preventative; carry a small bottle of it on the saddle all the time and when I find a new born calf or mule, I lay it down and pour plenty of creoline on the navel, and of any that I have found before it was 24 hours old and applied the creoline, not a single one has ever been affected with navel ill.—A. H. Ward, Cuba.

The vigilance of Mr. Ward is commendable. A better remedy, perhaps, is a drying powder, which in addition to possessing all the antiseptic qualities of creolin, has the power to dry up the navel cord and thus give double protection against infection later.—Editor.

Anyone who questions the growth of ultilitarianism in our schools, please note that the commencement exercises at the Missouri University this month include a horse show. The Missouri "grad" who cannot recite the pedigree and achievements of Rex McDonald would have a fine little chance trying to put over the "Rise and Fall of the Roman Empire."

The Fundamentals of Breeding

LESSON V; NATURAL LAW A GUIDE TO BREEDERS

By H. W. Vaughan of the Iowa Agricultural College

Scientists the world over agree that all the species of animals trace back through ages of time to a common ancestry. Man, monkey, horse, dog, mouse, house fly and bacteria all trace to a common ancestor. They further agree that this ancestor was a one-celled animal.

Where this original one-celled animal came from has never been established, although several possible explanations have been given. While it would be interesting to know just how the first cell originated, it is doubtful if such knowledge would be of any particular value at the present time.

It is sufficient to know that all animals may be so classified and arranged that they present a gradual building up or advance from a simple beginning to the millions of species of animals which exist in the world today. Some species have become extinct as conditions have changed, just as the buffalo is today almost extinct, and just as the mound builders have ceased to exist.

The development of the many present day species from one or a few species of very simple animals is spoken of as evolution. Scientists have endeavored to determine how evolution was accomplished. In their search they have discovered first of all that all animal forms show constant variation; that is, are constantly though slowly changing. Slightly different forms are continually being presented. Of these new forms, some are suited to their environment and can live, while others are not suited to it and die. Thus there has been a survival of the fittest, and this survival and persistence of some variations is referred to as "natural selection."

Natural selection may be illustrated as follows: In the Columbia River there is a species of salmon which ascends the river at about four years. The female lays about 4,000 eggs and then dies. Half of these eggs develop into males. If each female egg came to maturity we should have at the end of fifty years 8,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000 female salmon and equally as many males. About one hundred of these salmon weigh a ton, hence, if all lived, all of the rivers of the North and all the waters of the sea would be clogged with salmon.

The codfish has been known to produce 9,100,000 eggs each year. At this rate the sea would be solidly full of codfish in ten years. Similar results may be worked out with any species of animals.

There is, however, a constant struggle for existence going on not only among the individuals within a species but also between species themselves. Among the salmon in the Columbia River variations will occur. Some few will be stronger swimmers, or have better eyes to detect food, and hence these will survive while their less fortunate companions will perish. Nature is thus constantly improving her animals by selecting out the best, just as man relies upon the great principle of selection to improve the breeds of domestic animals.

Natural selection accounts for the fur of animals in the frigid zone, and also for the development of speed in some species so they may escape their enemies. On the same basis we may account for the antlers of the stag for protection, and the peculiar colorings of some insects and birds in order that they may easily conceal themselves by harmonizing with their surroundings. New characters which have appeared in animals have persisted if they were useful and aided the animal in its struggle for existence.

To the stock breeder Nature teaches a valuable lesson. It is that a few animals from among countless hundreds are suitable to perpetuate their kind. In Nature hundreds have perished for every one that has been selected because of fitness. The principles of Nature seem cruel and severe, yet it is by just such severe practices that man and the higher animals have evolved through ages of time from a simple beginning.

The stockmen who have achieved greatest success as breeders have been those who selected as rigidly as does Nature. They selected a few and discarded many. Keeping a definite ideal constantly in mind they have stubbornly refused to permit the use of inferior animals as breeders, but have preferred to keep fewer animals and have them of the very best character.

In this way progress has been and is being made. The great breeders of the past were expert judges of live stock. This ability to observe and measure an animal's good and bad points is fundamental to success in breeding. With it must be coupled careful, conservative action and will power sufficient to do the things the breeder knows he ought to do. The breeder must be unyielding when putting into practice his knowledge of the subject of breeding. He must hew to the line.

What natural selection is to wild animals the judgment of the breeder is to animals under domestication. Nature is always right in her judgment. She always does the thing which should be done. The breeder imitates her but is never quite her equal when it comes to adapting a race to an environment.

Nature would not breed a mare to a scrub stallion. She would breed only to the best. She would not tolerate a weak, unsound animal, nor gamble by taking the chance of such an animal producing a good offspring. She does not mate extreme or opposite types of animals. Neither does she take up first one breed and then another, but sticks to what she has and makes it better by rigid selection. She is persistent, always on the job, and never lets up for one moment her careful searching out of the best for use and rejection of all others. Every inferior animal is sent to the butcher. The result is the many thousand species of animals which exist today—each uniform in type, each adapted to some particular environment, all dovetailed and fitted nicely together, and all highly useful for particular purposes. Had Nature practiced the slipshod methods followed by so many breeders, the long ages which witnessed the evolution of man and the higher animals would have availed little or nothing. To the animal breeder Nature teaches many valuable lessons.

FARM SURGERY AND THE ZODIAC.

To the American Breeder:—About 4,000 years ago the fantastic mind of the Babylonian divided the belt of the heavens through which the eliptic runs, into 12 equal parts 30 degrees each. To each part was given the name of an animal such as ram, bull, crab, lion, etc., and these animals were fancied to possess a magic influence over animal life on the earth. The ram influenced the head, the fishes influenced the feet and so on throughout.

Now the moon completes its journey around the earth through these twelve parts of the zodiac in about 28 days. When the moon is in that part called the ram we say "sign is in the head," when the moon is in the fishes we say "sign is in the feet," etc. Each "sign" is of about 2 days and 8 hours' duration.

These "signs" were imagined to have a mystic effect on bodily injuries and our fathers have been particularly wary not to brand or unsex animals if the "sign" should be in a vital organ.

We can hardly conceive of a purer myth, and yet the superstition lingers. How long the way from the mystic to the scientific.—S. L. MacDolald, Colorado Agricultural College.

GOOD BUSINESS IN MINNESOTA.

To the American Breeder:—I am getting along fine. My Belgian mare, Princess, foaled on May 5th a nice sorrel filly by Crampon. Both are doing fine. Both of my stallions are very busy and expect to be all through June. The weather has been very cold so far (letter written in May.) Have not done any artificial breeding yet but will through June. Have found several mares not in condition to breed; they were slimy in the vagina and the os was quite flabby. I am going to give them the saline treatment and when they show all right will breed them. Am using the microscope freely and it is an advertisement; would not get along without it. Now, when a patron sees live sperm cells taken at the time of service of his mare, he knows absolutely that it is up to him and his mare to produce a colt. He cannot lay the blame on the horse. With best wishes for the best stock paper on earth, I remain a loyal subject.—W. F. Dusell, Chippewa County, Minn.

ANOTHER PLACE WHERE A GOOD HORSE IS NEEDED.

To the American Breeder:—I am a new subscriber to your excellent paper, but I am coming to you for advice on a very important matter. The people in this locality were badly "stung" about five or six years ago in the purchase of a company stallion. They paid about $3,500 or more for a Percheron, but he proved to be a very poor foal getter, although what few colts he did get were good ones.

Since his own colts have become old enough to breed, they had to dispose of him for a mere song, and I have tried for two years to get up another company to bring a good stallion in here. But there seems to be nothing doing for fear they will get "stung" again. Consequently all the breeding for quite a scope of country around here is done by a few grade stallions, some of them from very poor dams. I have tried to get some stallion owner to put a pedigreed stallion in here for one season and let the farmers see what he could do, and then let them buy him if he proved good, but have not succeeded.

Can you tell me of some plan by which we can get a good horse in here. If my circumstances would permit, I would get one myself, but my finances are too limited for that. But I do want to see our coming generations of horses greatly improved, and the only way to do this is by having a good sire. I am greatly interested in good horses and I would like for you to send me those educational posters mentioned in your last paper, and I will put them in prominent places and will get as many subscriptions for your paper as possible. Thanking you for any help you can give me in this matter I am, L. D. Pruitt, Clearwater County, Idaho.

Editor's Note:—We will be glad to furnish Mr. Pruitt's address to parties advertising in the American Breeder. We will be glad, also, to publish the experience of others who have met the same difficulty as Mr. Pruitt.

Getting the Mare Owners' Co-operation

There is a link missing (in many locailties) between the breeder and his mare owners. The quality of sires used is not good enough. There are too many men patronizing scrub sires. Practically every community has a number of grade colts or stallions that should be castrated. Mare owners are not taking enough care of their mares and colts. There are entirely too many useless, unfounded notions existing among mare owners. Collections are not made as promptly as they should be.

But the list of difficulties might be summed up in this manner: The best sires are not producing as much cash as their owners should receive. Conditions in practically every community can be improved. For several years we have been making special subscription prices to facilitate the mare owners' education. This work has long passed the experimental stage. Hundreds of breeders have tried it and found it successful. Through a recognized and up-to-date publication you can reach these mare owners and influence them in a substantial way—for men must believe authentic statements printed in such a publication. If the stallion owner has to depend on his own argument, some, of course, will believe that he is only working for his own interest.

No breeder can expect to have a good breeding district without first having his customers educated. The influence of one progressive owner of mares, who learns the facts which the American Breeder teaches, will extend far beyond his own farm. His knowledge will be scattered all over that neighborhood. If his information is correct it will greatly aid the cause of more and better live stock. If he patronizes scrub horses and follows the notions set forth by his grandfather, that same influence will be felt. There is seldom any need in having these men working against the best interest of the live stock industry.

We have decided to make it possible for every breeder to have his mare owners reliably informed in matters of importance, from their side of live stock production. With this in view, we are now making an offer which, if accepted, will prove the best advertisement that any breeder ever used, regardless of the price, and it will result in the permanent information which the best success of his business requires.

Doesn't Mean the Other Fellow.

Now we are wondering how many breeders will say that this offer is for the "other fellow," and not take advantage of it themselves.

In order to further satisfy ourselves as to the exact results of the educational work done through getting mare owners on our subscription list, we sent out letters to some of those who have used this method of advertising and educating their customers. We want every stallion and jack owner to read the replies of these men—every one of them. These statements show that the average mare owner wishes to do the right thing if he knows how. Most mare owners have so many other affairs to think about that they have not given the subject of horse breeding enough thought. But this education makes them think. It is really worth doing—as an advertising proposition, in addition to getting the papers themselves. The customers are notified from this office who is paying their subscription. Every time a mare owner receives one of those papers he thinks of the man who has paid his subscription. You will notice how many of these letters state that the mare owners have thanked them for sending them the paper. This shows whether they read the publication or not. Practically every paper thus sent out has produced some lasting results. This is direct advertising. Every paper goes to the right spot.

Sime may wonder why we are mentioning these facts at this time; why not wait until the next breeding season begins. That is exactly the mistake that has been made by too many men. Right now is the time to prepare for the next breeding season, and not put it off until it is too late. Right now is the time to know where the different men are breeding their mares. It is easy and is a part of your business to find out how many good, substantial men are patronizing scrubs. One can easily make up a list of good men that he would like to have for his customers. Some breeders are probably experiencing now the difficulty of losing both mares and colts because they were not properly handled. For a few dollars the breeder can prepare the way for more successful and permanent business than he has ever done before with double the amount of money.

Start the Work Early.

We are going to start the Mare Owners Edition September 1 this year and make a rate on them of ten cents for five months, where ordered in clubs of ten or more. This is the cheapest and the best proposition we have ever made for the breeders; $10 will pay for the education of and the advertisement to one hundred mare owners. Who cannot afford to spend the fee for one colt for educating the entire community? One ought to realize from 20 to 50 times that amount. Spending the service fee for one colt would (in many communities) increase the collection 50 colts.

Let us make this price plain. You can send the American Breeder to ten mare owners for $1.00. Those ten mare owners will receive the paper five months. Additional mare owners' subscriptions will cost ten cents each. We notify each mare owner from this office at our expense, who has paid the subscription. The paper will stop when the subscription is out without any embarrassment to any one. The American Breeder always stops when the subscription is out.

Make up your list right now and send it in. It must be in this office before September 1. This is the best time to prepare your list while everything is fresh in one's mind. By starting the paper in the fall we will have an opportunity to interest them with a lot of good photographs from the fairs and good reading material before the breeding season starts. Read the statements which follow of those who have used the Mare Owners Edition:

Overwhelming Endorsement of the Plan.

"May 25, 1914:—I certainly appreciate the results of the Mare Owners Edition. I sent it to two or three who knew too much to read it and have fought it, but the balance of them appreciate it and most of them now are regular subscribers. It does me good when some of them bring in mares that I pick for service and they suggest for me then to capsule them. It is common for them to tell me that they did not believe in scientific breeding until they read the American Breeder. Then they knew there was something to it. These men all want their mares capsuled. Sending the Mare Owners Edition to my customers and getting their influence has increased my business at least three or four times. I want all of my customers to be reading the American Breeder by another season, as that is the best advertising we could get, as it educates. Success to the American Breeder.—S. R. Oliver, Indian Creek, Texas."

"May 29, 1914.—Will say I sent the Mare Owners Edition to fifty of my customers and I think it is a big help in two ways. First, it teaches the mare owners how to take care of their mares and the young foal, and to detect disease in mares; second, it draws you more business. I have customers this year I have never had before. They thank me for the paper and say that it was the best stock paper they ever saw. Some of them said they would subscribe again for it. I would like to attend the breeding school, but have never got to it yet. I think I will some time. —Yours truly, Will Albin, Saffordville, Kas."

"May 29, 1914.—I will say it pays to send the Mare Owners Edition to the mare owners. I did this and my business is growing every day. If they read it, it helps them all. Of course there are some people that don't take the time to read much. I shall send out another bunch next winter. The people that I sent it to last year were well pleased with it and some have subscribed again for it.—Barney Lott, Goltry, Okla."

"May 29, 1914.—I wish to say that no mare owner can afford to be without the American Breeder in his home and carefully study every issue. I also think it one of the very best ways to advertise. The only advertising I have done this year, was done in this way. I have four stallions and have plenty of business for them all. I think this educates mare owners to take better care of their mares and colts and to use better sires. They also have better feeling for the public-spirited man who spends his money for good sires and handles them properly. I feel that by sending your Mare Owners Edition to fifty or seventy-five of one's customers that surely at least some one would get some good out of it that would benefit him more than the price of one colt. And if that be the case I feel that the money has been well spent.—J. C. Kline, West Salem, Ohio."

Nothing Like "Mare Owner Editions."

"May 29, 1914.—In regard to the Mare Owner papers, there is nothing like them to get the mare owners to understand what horse breeding is coming to. It makes them understand what you mean by capsule breeding and they read and learn how to care for these mares and colts. I have had lots of them thank me for the paper. We stallion men cannot do too much to help on this horse breeding question as it must come to artificial breeding and scientific principles.—E. E. Hall, Kincaid, Kas."

"May 29, 1914.—Some of the men that I sent the Mare Owners Edition to have already subscribed again for the American Breeder and before the season closes there will be quite a few more. I think it will be an easy matter to establish the capsule system among these men, as several have asked to breed their mares by capsule this season. I bred a few mares last season with good results. My patrons did not want to breed that way, except in a few cases of shy breeding mares, and when I could not breed by natural service.—Thomas Shekleton, Murdock, Minn."

"May 24, 1914.—As to the benefit derived from the Mare Owners Edition of your paper will say I consider it the best advertising a stallioner can buy.—E. J. Bliss, Bloomington, Kas."

"May 25, 1914.—Of my customers to whom I sent the Mare Owners Edition, quite a number have thanked me for sending the paper. They all speak in praise of the paper. It holds the old customers and brings new ones. My customers read these papers. They learn to care for their mares and colts. I charge $15; my neighbor charges $5. I get the good mares, he gets the others. This money was well spent. It brings business and of a better class of mares. They return them more promptly and care for their colts better. The loss has been small and the collections have been good. If I could leave home I would surely take a course in the school.—A. L. Snider, Letcher, S. Dak."

"My Business Increased a Third."

"May 25, 1914.—The Mare Owners Edition is as good as a man can get, in regard to advertising. I think it is most valuable in instructing the mare owners to take better care of their mares and foals when they come. It reminds them of their duty to look after their foals. I stand only a jack, but my business has increased a third this year. I wish every farmer and mare owner was a regular subscriber. I think there is nothing like the American Breeder.—J. F. Richeson, Kearney, Nebr."

"May 29, 1914.—I sent a number of my customers the Mare Owners Edition and all that I have talked to about it were very well pleased with it and most of them thanked me for it. I think it is money well spent. It is good advertising and very cheap. —T. L. McWilliams, Girard, Kas."

"May 25, 1914.—I think the Mare Owners Edition a paying proposition to the mare owners as well as the stallion owners. The mare owners take more interest in breeding, pay more promptly and take better care of their colts. I think it is the cheapest and best way for a stallion owner to advertise. He cannot spend ten dollars that will bring him more returns than to send the editions to 100 mare owners.—J. W. McDonnell, Humboldt, S. Dak."

"May 23, 1914.—The Mare Owners Edition puts them to thinking and gives them food for thought. Then they come to you for some advice, and ask you about some certain case and that gives you a chance to show them why they should use the best horses in the country. But this takes time. My horse and jack have all I want them to do. I am satisfied the money was well spent. I have very good luck with capsules.—M. Roberts, Tecumseh, Nebr."

"May 26, 1914.—I do not think a breeder can spend his money for a better advertisement than by sending out the Mare Owners Edition. It is an advertisement that benefits both breeder and mare owner and is permanent, for every reader is a 'booster.' I have received many thanks for the paper and have gotten more mares. I will send out manyfold more next year if the American Breeder will give me the chance.—R. F. Dunn, Greenwood, La."

"May 27, 1914.—In regard to the paper, all I have talked to seem to be well pleased and very much interested in it. I also think it makes them more interested in their mares and colts and they seem to want a better grade of both mares and sires. —H. T. Johnston, Madison, Mo."

"Easier to Make Men Understand."

"May 26, 1914.—The papers I had sent to mare owners have helped in nearly every case, both as to business and education. It is easier to make men understand after they have read the paper. I show the paper to all of my patrons and they think it is the best they have ever seen, but don't feel able to subscribe as there have been several crop failures here. I believe the Mare Owners Edition is a success in every way.—Chas. Snyder, Pringle, S. Dak."

"May 25, 1914.—I think the Mare Owners Edition great for every man in the horse business to send to his customers. All I have sent them to have thanked me for it and they say they have never seen such a paper

with so much information in it about caring for and breeding horses. I think it has helped my business very much. They also pay more promptly and breed to the best they can find. —F. J. Heinigle, Medaryville, Ind."

"May 26, 1914.—I think the Mare Owners Edition all right. It made me some good customers and it drove away one or two. I think the mare owners needed information as well as the stallion and jack owners. I had a graduate from the Graham Scientific Breeding School to test about twenty barren mares last week. Some of these mares were 8 or 9 years old and had never raised a colt. Some had raised a colt or two and not raised one for four or five years. When told some of these mares were not in condition to breed, a few got sore.—W. E. Harlow, Bluford, Ill."

"Materially Increased My Business."

"May 26, 1914.—I can say that the Mare Owners Edition has materially increased my business this season, and I think it will be a great help in causing mare owners to take better care of mares and also cause them to see the mistake they are making in breeding to scrub horses. This is my first season in the business, but I am getting all I can do. I could hardly do without the paper. —Sid Goodwin, Madill, Okla."

"May 25, 1914.—I sent the Mare Owners Edition to a number of my customers last season and it is the best money I could spend, I am sure. Most of these parties took an interest and studied the papers received and are now laying some of the blame on themselves as well as their mares, and not all to the stud if mares did not settle at first cover. Have grade horses all around us, but I can say honestly that we are doing the business. The good sire is what counts around here.—E. T. Purinton, Wilcox, Nebr."

"May 25, 1914.—I can only speak for myself as a breeder. I think the American Breeder sent to the mare owners is a good thing for them and for owners of good sires. I think it will encourage them to take better care of their mares and colts, take more interest in their stock, demand better breeding stock and feel more like paying for the colts when they get them.—John Hardman, Hinton, Okla."

"May 22, 1914.—I think the American Breeder is the greatest paper on earth to educate the public. I have been a regular subscriber from the first edition of the Stallion & Jack News and I owe my success to this paper. I am using one Percheron stallion and one jack and make one service a day with each. I have bred 300 mares to date and this is my seventh season to use the machine.—A. S. Snider, Elkville, Ill."

"You Get a Man Interested."

"May 23, 1914.—I am satisfied that I have got good returns from sending out the Mare Owners Edition. The fact is that if you can get a man interested and get him to thinking it will give him a better understanding so that you can get in closer touch with him. It also saves a large amount of talking and is also a good education in the way of taking care of mares and foals.—A. L. Myers, Hardy, Nebr."

"May 23, 1914.—Your paper has been of more value to me than anything I ever read. It will certainly pay to send the Mare Owners Edition to some customers. While some are so smart they can learn no more, there are others who will see the error and appreciate it. I think we should do all we can to increase the mare owners' interest and create a better feeling between us and increase the business.—C. W. Peterson, Hopeville, Iowa."

"May 23, 1914.—I sent more than 100 copies of your Mare Owners Edition to my customers this year and I think it has done me and my customers more good than anything I could have done. Lots of them thank me for doing so. I am sure they will appreciate better stock, take better care of mares and pay for breeding better.—H. T. Constant, Wills Points, Texas."

"Made Me More and Better Customers."

"May 23, 1914.—I have been reading the American Breeder for over five years and know it is the best horse paper in the United States. The Mare Owners Edition has made me more and better customers. It makes the capsule system easier to introduce and makes some farmers keep away from breeding barns that are infested with disease and inferior stallions.—Rudolf Bergman, Manley, Nebr."

"May 25, 1914.—The Mare Owners Edition of the American Breeder that I have sent out for the past two years have been profitable on the whole, both directly and indirectly, as they have caused the best class of mare owners to read and think a little for themselves. There was a bunch of 26 mare owners in my barn the other day when the last copy of the American Breeder arrived and we had quite a lot of fun picking out what we thought would be the champion Belgian stallion.—Rembrandt Morgan, Winfield, W. Va."



A BURRO AND HER NINE MONTHS HINNIE COLT (SIRED BY A STALLION), OWNED BY MR. LYNE, WOODSON COUNTY, KANSAS.

"May 24, 1914.—I sent some of my customers the Mare Owners Edition. It pays in three ways. It is good advertising for the stallion and jack owner when you get a bunch of men to reading the best paper of the kind on earth, and they say, 'Send that paper on; don't wan't to miss a copy.' It helps the paper and the customers and paid me the best of any advertising I ever tried for the breeding business. The increase in business and the care that mares get, show for themselves.—W. W. Hungate, Texico, N. Mex."

"May 25, 1914.—I think it has paid me well to send out the Mare Owners Edition. I think it the best advertising I do. It brings you a better class of trade, from men who really are trying to improve their stock. Many have come and thanked me for it and given me some of their business, that did not before. With best wishes for the American Breeder and its patrons.—A. J. Dunaway, Chilhowee, Mo."

"May 23, 1914.—I think the Mare Owners Edition great. It makes a better feeling between mare owners and stallion men. My customers have not subscribed for the American Breeder like I thought they would, but our crops were a failure last year. They think the Mare Owners Edition great. I think they have helped my business greatly. It certainly is the best advertising I ever did for the money.—C. L. Crabtree, Laverne, Okla."

"May 25, 1914.—I think the money I have spent in the last few years for the Mare Owners Edition is money well spent. Not only has it made me more friends and more trade but it has done lots of good towards educating the mare owners to take better care of their mares.—J. T. Taylor, Foley, Mo."

"Was Thanked by Nearly Everyone."

"May 25, 1914.—I have tried sending the Mare Owners Edition this spring and was thanked by nearly everyone, but am a little disappointed as there were only a few who subscribed again. They are by far my best customers. They show more interest in the breeding and are not so doubtful of the work I am doing in capsule breeding and thorough examinations I make. I only wish that more would subscribe and am satisfied that they wouldn't patronize the first horse that comes along. Am staying at home with my horses and have a good trade. All my competitors travel. Success to the American Breeder.—J. J. Bonnstetter, Corwith, Iowa."

"May 25, 1914.—In regard to the Mare Owners Edition will say I think not only I and the men who got them were benefited, but lots others. Some of them have told me they are kicking themselves yet for not subscribing for the paper before now, while a few I have never heard say anything about it. I think I am doing fine in my work. I have bred 106 mares up to now. Have got just a few that I am not getting settled. I am using capsules now altogether. —M. A. Harris, Sasakwa, Okla."

May 25, 1914:—I have tried the Mare Owners Edition this spring and find it is a very good thing. The mare owner will take better care of his mares and they are more in favor if having their mares examined and also of the use of capsules, and take a greater interest in the breeding of good stock.—H. M. Kready, Abilene, Kas."

"May 25, 1914.—I believe that mare owners are waking up to the fact that it pays best to breed to the best sires available. I am eight mares ahead of last season's work, using the natural service. Have turned mares away and have a number booked ahead. I believe the American Breeder would be a great help to the average mare owner in the way of enlightenment. There are many mare owners not well informed in regard to breeding matters. Success to the American Breeder.—A. C. Huff, Wabash, Ind."

"May 25, 1914.—I believe it is profitable to send the Mare Owners Edition to customers. If all mare owners would take the paper and read it it would help out all around. I think it cheap advertising. It improves the care of mares and consequently the number getting in foal. I would like it if all mare owners were readers of the American Breeder.—A. E. Bolton, Glidden, Iowa."

"May 25, 1914.—I think the Mare Owners Edition is all right. They are the cause of a good per cent of steady subscriptions. I think it makes men take better care of their stock. I can see no difference as to paying of service fees as most of them are depending upon their wheat to meet their payments. They are all looking for better sires. They all thanked me for the edition and say they are the best they have ever seen.—J. A. Swearingen, Breckenridge, Okla."

"Mare Owners' Editions a Winner."

"May 26, 1914.—I consider the Mare Owners Edition a winner and a good feature to continue. Several of my customers have given me several boosts, by reading articles in those editions and then telling the neighbors. In fact, the American Breeder is an indispensable article for the American farmer and breeder if he did but know it. This is the opinion of most every one here.—R. A. Wright, Neosho Falls, Kas."

"May 25, 1914.—I consider the American Breeder a very valuable paper for all farmers and stock raisers and I believe it would encourage plenty of men to patronize the best sires if they would only subscribe for the paper and read it carefully and then practice what they have read. I am of the opinion that the education some of my customers have received out of the papers I sent them has increased my trade and caused men to wake up and patronize better sires, who formerly bred to scrubs.—T. A. Mason, Auburn, W. Va."

"May 23, 1914.—I think the Mare Owners Edition all right. It will help them to take better care of colts at foaling time as well as after, where so many are lost. It helps to educate them in caring for the colts. It is hard for most men to do as well as they know how, much less better than they know how. So educate them and the stallion owners will not have so many losses in the way of dead colts. Most men will thank you for sending the paper and you will be surprised how quick a reader will urge you to get more of the best stock and are willing to pay a higher service fee. The best kind of stock is the cheapest and best advertising you can get. If you have scrub stock go get rid of them as soon as possible. You are doing no good for either yourself or your community. —H. A. Ringer, Jasper, Mo."

"May 24, 1914.—In regard to Mare Owners Edition will say that some of our customers thought they were all right. I think it is a good way to advertise. Most of them thanked us for sending it, and a few subscribed for the paper. Others never let us know. I think it more than paid for itself.—J. H. Griswold, Agra, Okla."

"Best Thing I Have Ever Done."

"May 25, 1914.—I sent the Mare Owners Edition to several of my patrons and think it the best I have ever done for the general welfare of all concerned. It gives the best and most knowledge obtainable and puts it right to the patron's home and like all truths or facts, it is bound to stay. We not only help ourselves but start those we can get to read the American Breeder, in the right direction to be a help to mankind, which is best of all.—D. W. Strong, Lamoni, Iowa."

"May 25, 1914.—I think the Mare Owners Edition is good and worth the money. My patrons appreciate it and speak well of the paper. It has increased my business and I believe that the good influence of the papers is greater than the publishers imagine.—Bert Witt, Fulton, Kas."

"May 23, 1914.—My customers thanked me for sending them the Mare Owners Edition and several of them said they would subscribe for the paper. I think it is a good way to advertise. I think you have the best paper printed for a stockman.—R. A. French, Frankfort, S. Dak."

"Wish I Had Used Five Times as Many."

"May 22, 1914.—My customers were well pleased with the Mare Owners Edition. I only wish I had sent five times as many. I used the capsules last year with splendid results.—O. T. Karr, Quitman, Mo."

"May 25, 1914.—I had your paper sent to ten of my patrons and got good results from four of them. They spoke well of the paper and of the principles you advocate. They see where they have made the mistake in breeding to scrubs for the saving of a few dollars on the starting of a colt, and the losing of $50 on the matured horse. I sent the paper to a negro patron who would generally breed one mare to my horse and the rest to a cheap grade horse. When that negro got to reading that paper his eyes began to open and the next paper opened them wider and now he is a strong advocate of the full-blooded horse. Yet there are other mare owners that you could not open their eyes with a fifty-pound sledge, because they can see only what they can save in the service. But if you publish another Mare Owners Edition next year I will send those fellows another dose.—J. M. Bryson, Hawleyville, Iowa."

"May 29, 1914.—I think it pays to send the American Breeder to mare owners, for if any one thing will teach them how to handle the mare, it is The American Breeder. It takes them a long time to wake up and to convince them that the registered horse is the thing to use. But they are slowly coming to it.—J. R. McDowell, Plattsburg, N. Y."

"June 1, 1914.—If a man reads at all, he can hardly help reading the American Breeder when he receives it, and if he reads it he will profit, at least, to some extent. Most of the men to whom I sent the Mare Owners Edition have expressed their appreciation, and while the results may not be very marked, it seems to me more attention is being given to the proper care of breeding stock here.—C. M. Jennison, Farnsworth, Kans."

"June 1, 1914.—I think the Mare Owners Edition is the best advertisement for the money you can get in answer to the questions you ask; will say yea to them all.—W. H. Blank, Napoleon, Ohio."

"Larger List Next Year."

"June 1, 1914.—The Mare Owners Edition of the Breeder that I asked you to send for me, seem to have been gladly received, as each one has expressed delight and thanked me for them. Next year I will send you a much larger list.—Harry McCullough, Fayette, Mo."

"June 1, 1914.—The Mare Owner Edition is the most profitable advertising for the breeder. The information the mare owner gets from reading these papers gets him interested in the subject and causes him to have a more friendly feeling for the public spirited owner of good sires who has more at stake than he has. Education along this line will do more toward the improvement of horse and mule raising in this section than anything else.—R. J. McAdams, Lisbon, La."

"June 1, 1914.—In answer to your letter of May 21st, will say that our people of Montana know a good thing when it comes their way and certainly appreciate the good wishes of others. The customers who received the American Breeder through me have certainly favored me this far and to say the least, I also appreciate their help and favors, and thereby solicit their patronage. Those who have not taken this opportunity of advertising have no way of knowing the value. Let a hint to the wise be sufficient.—J. E. Keller, Froid, Mont."

"June 1, 1914.—You ask me if I think it pays to send the mare owner copies of the American Breeder. Will say that I think it teaches them a great many things about the care of mares and colts. I am trying to interest them in breeding the best mares that can be gotten.—Chas. E. Walsh, Wheeler, Ind."

"June 1, 1914.—In regard to the Mare Owners Edition, will say that it cannot be beaten as an educational advertisement. So many times some question comes up at the breeding barn, and there is generally someone around who has received this Mare Owners Edition. They always have a better idea than the others. As to the increase in business, cannot say, as this is my first year. Am sure going to send out more of the papers next year.—R. T. Ishmael, Kiowa, Kans."

"Increased My Breeding Operations Forty Per Cent."

"June 1, 1914.—I believe the Mare Owners Edition to my customers increased my breeding operations 40 per cent, for they all told me last winter they were going to quit breeding, now they are coming stronger than ever, having bred more to date than entire season last year. Besides, it taught them a good many things which they did not dream of in regard to conformation, better care, better breeding, better sires and mares, and aroused a general interest and were all really surprised, for they would talk to you about different characteristics of different breeds, and I believe fully one-third of them will subscribe. For advertising it has no equal in the horse business.—J. N. Mayer, Uniontown, Wash."

"June 1, 1914.—Will say that I have talked with a number of men that I had the paper sent to and they all think it is a good paper and have thanked me for sending it to them. Some say they have ordered it for three years and I have the order of some at the special price and am sending them in. I think that I could not have spent that much to any better advantage. There have been several told me they would not like to go to a place now where a man did not know his business and I think well enough of sending the paper to my customers. It has paid me well enough that I expect to send it again next spring to all that do not get the paper. I think the paper and the school is the greatest thing there could be for the breeders and stockmen of this or any country, and if I live, expect to attend the school and bring others with me if I can the coming fall and winter and do all in my power to make the breeding business better and for better sires.—James E. Griffith, Chillicothe, Mo., R. 3."

WARNING AGAINST ALLEGED CHOLERA CURE.

To the American Breeder:—Evidence of what appears to be a well organized campaign to delude farmers throughout the country into buying an alleged cure for hog cholera, under the impression that this has been investigated and approved by the United States government, has reached the department of agriculture. Articles praising this medicine, Benetol by name, are being sent out widespread to newspapers. These articles are so worded that it appears as if the department of agriculture had received reports from the state of Minnesota showing that the medicine had proved most beneficial. As a matter of fact the one report received by the department was an unofficial and unsolicited statement sent presumably from the promoters themselves. The department attaches no importance whatsoever to this statement. It has no reason to believe in the efficiency of any proprietary cure for hog cholera and does not recommend any. Under certain conditions it urges farmers to protect their stock with anti-hog cholera serum but that is all.

In connection with this attempt it may be said that the medicine, which is now put forward as good for hogs, was advertised some time ago as a means of killing tuberculosis, typhoid, and cancer germs, according to an article published in the Journal of the American Medical Association. At that time it was asserted that the army was interested in it. As a matter of fact the army was no more interested then than the department of agriculture is now.—Office of Information, U. S. Dept. of Agriculture.

BREEDING CATTLE IMPORTED IN 1913.

The United States Bureau of Animal Industry has issued a list of cattle imported for breeding purposes in 1913 for which certificates of pure breeding have been issued by the Federal Department. This list includes the names of animals, their registration number, the name of the importer, and the department number for the various breeds.

The following table shows the number of certificated cattle imported for breeding purposes during 1913:

Breed—	Bulls.	Cows.
Aberdeen-Angus	4	.....
Alderney	2	98
Ayrshire	23	163
Galloway	11	2
Guernsey	40	738
Hereford	35	33
Holstein-Fresian	10	16
Jersey	35	608
Shorthorn	84	122
Total	244	1,780

This list can be obtained on application to the Bureau of Animal Industry, Washington, D. C.



Keep an accurate record

of your farming operations and illustrate that record with Kodak pictures. An album of Kodak pictures, with explanatory notes on methods of tillage, drainage, fencing, building, breeding and the like will make a valuable reference work that will help you plan for the year to come. Experience is the best teacher—but you need records of such experience. Let the Kodak help.

Ask your dealer to show the Brownie Cameras $1.00 to $12.00, or Kodaks from $6.00 up. Catalogue free at the dealers, or by mail.

EASTMAN KODAK COMPANY,

448 State Street, ROCHESTER, N. Y.



STEEL Shingles or Wood???

Will you buy wood shingles, which **burn** and **rot**, or Edwards **Steel** Shingles, which are absolutely **rot-proof** and **fire-proof**?

Will you buy wood shingles, that have to be nailed on, **one at a time**, or Edwards Steel Shingles, that go on in clusters of **100 or more**?

Will you buy wood shingles at a big price or Edwards Steel Shingles at **low prices**, direct from the maker?

The time to decide is now—**before you have invested your good money.**

Edwards Steel Shingles

Factory Prices—Freight Paid

Don't judge Edwards Steel Shingles by common galvanized roofing—which always rusts. We have a method that absolutely **prevents** rust from getting a foot-hold, as 125,000 people have found. It's the famous Edwards **Tightcote Process.**

No painting, no extras, no tools, no expert workmen needed. Hired man can do it with hammer and nails. Put 'em on right over old roof or on sheathing. Outlast **four** ordinary roofs. No dealer's profit to pay. Sold direct from factory to user. And we now pay the freight!

WRITE Get off a postal tonight and our Special Price Offer and Roof Book No. 676 will come by **return mail.** Then judge. Then decide "which is which"—Edwards Steel Shingles or wood shingles. Give size of roof, if you can. (132)

THE EDWARDS MFG. CO.
626-676 Lock Street, Cincinnati, Ohio

Live Stock, Hay and Grain Market Review

A government contract for 2,750 horses and mules was let last week to Kansas City and St. Louis dealers. These animals are to be used in the Texas and coast divisions of the army and some of them will be sent into Mexico, where about 10,000 soldiers are now stationed awaiting the final solution of the Mexican problems. The order included practically all classes of horses and mules, and according to Capt. Hawkins of the quarter-master's department, would have been made regardless of the United States being mixed up in the Mexican affairs. The demand had been anticipated by dealers and they have been buying a good many horses, both on the open market and in the country to fill the orders, so that the actual work of getting the required number for inspection has been about completed, and will be only a small factor in the demand from now on.

The general summer dullness is opening up and from now on dealers expect only special demand to maintain the market. Receipts have fallen steadily. in the past months and now about 1,000 to 1,500 is about the limit of a week's supply.

The wheat harvest is approaching in Kansas, and both horses and mules will be bought for that section in the next two weeks. Some went to Texas and Oklahoma last week, as harvest in those states has already begun.

Eastern demand is light and will continue so through June and July. The past six weeks has been marked by unusually large purchases, and they are passing into the period where all demand has been satisfied. The cotton states never buy horses and mules during June and July unless some special urgency arises. The season in the Southwest has been extremely wet, and cotton prices have advanced materially on that account. However, the Eastern belt into which section the principal sales of mules are made, is reported in good shape.

On the present prospects for abundant feed crops it looks as though the fall trade in thin horses will be active. Last fall this demand was checked by prospects for high-priced feed, but operators made good, notwithstanding this handicap. A better feed situation should encourage barn operations materially.

Reports from the northwest indicate that sales have been on a satisfactory price basis with local demand unusually good.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Drafters, 1700-pound extra quality	$250@300
Drafters, good to choice	200@245
Drafters, fair to good	150@185
Chunks, good	150@180
Chunks, fair	95@150
Southerners, good to choice	130@150
Southerners	65 up
Mules—	
13½ to 14½ hands	100@135
14½ to 15½ hands	130@165
15½ to 16 hands	160@210
16½ or better	200@265

Little Change in Cattle Prices.

Cattle prices in the past two weeks held within a narrow range, the price movement amounting to 10 to 20 cent fluctuations. Falls that cattle took were of more importance than the price changes and though killers tried to guard against increased weight by some price changes the net to shippers was fully as good as two weeks ago. The fine Western markets are receiving about 90,000 cattle weekly and there is a constant shifting in supplies from one market to another, so that barring the double count on some cattle actual supplies are extremely slow. Competition in the market is unusually small. Most of the small slaughter houses throughout the country have either been closed on account of the prevailing high prices for butcher cattle or they have ceased operation because packers have bought them. A year ago order buyers at the various markets practically set the pace in prices, and now they are of little consequence in the demand.

The movement of grass fat cattle is backward. Grass in most sections is good, and cattle are being held and will be held for full weight gains. So far only grassers from Southwest Texas have been received. A material increase in the movement from below the quarantine line is expected this month.

Th top price for steers in Kansas City in the past two weeks was $9.20, and in Chicago $9.40. Some Colorado beet pulp steers sold in Chicago at $9.35 a record, and some Mississippi steers sold in St. Louis at $8.75. The bulk of the cattle at river markets, however, are on the Western order, and are bringing $7.75 to $8.50, for those on the native side, and $7.25 to $7.75 on the quarantine side. Full fed steers are very scarce with no indicated increase in the supply.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.00@9.25
Good to choice steers	8.35@9.00
Fair to good steers	7.90@8.35
Common to fair steers	7.15@7.90
Meal fed, choice	8.25@8.75
Meal fed, common to fair	7.50@8.20
Quarantine steers, fed	7.75@8.40
Quarantine steers, grass fat.	6.50@7.85

Butcher Cattle Scarce.

The beef trade that usually depends on cows, heifers, bulls and calves, is drawing light supplies, and consequently prices are being firmly maintained. At this season of the year there should be a big showing in receipts of grass cows and heifers, but the desire of farmers to hold them for stock purposes is keeping the she stuff supply extremely small. The same is true of calves and practically all the scrub bulls and superannuated service animals have been disposed of. It begins to look as though canned meats this summer will receive no increase in stocks in store and that butchers will pay even higher prices than last summer for cows and heifers. Practically all the dry lot butcher cattle have been marketed.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$7.00@7.75
Good to choice	6.50@7.00
Fair to good	5.75@6.45
Common to fair	4.85@5.70
Canners	4.25@4.80
Heifers—	
Choice	$8.50@ 9.00
Good to choice	8.15@ 8.45
Plain to fair	7.25@ 8.20
Common	6.00@ 7.20
Veal calves	7.00@10.50
Bulls	5.50@ 7.50

Scarcity of Thin Cattle.

Receipts of stockers and feeders have been light and prices are firm, though slightly under the high point of the season owing to increased weight cattle carry from grass fill. The actual supply is far below requirements but the continuation of high prices operates as a check in buying. A dollar drop in prices would bring out a regular scramble for offerings.

The following quotations are for the various grades of stock and feeding cattle:

Selected feeders	$ 8.00@ 8.30
Good to choice feeders	7.50@ 8.00
Fair to good feeders	7.15@ 7.45
Plain to fair feeders	6.75@ 7.10
Selected stockers	8.00@ 8.40
Good to choice stockers	7.40@ 8.00
Plain to fair stockers	7.00@ 7.35
Stock calves	7.25@ 8.55
Stock cows	5.75@ 6.50
Stock heifers	6.00@ 7.50
Milch cows	60.00@110.00

Big Slump In Hog Prices.

May closed the five months' period in exactly the same position for hogs as January's opening prices. The entire swing in prices was up 75 cents to the latter part of April and since that time the down movement amounted to exactly the same. Closing quotations for May in Kansas City were $7.90 to $8.05 and in Chicago $7.90 to $8.15. April receipts of hogs at the five Western markets were about 100,000 short of the same period last year, and thus far this year receipts of hogs at the five points are about 550,000 less than in the first five months last year. Receipts the past two weeks have been rather liberal, going above 300,000 weekly. The increase is due to the completion of corn planting in many sections, and heavy rains elsewhere. Nebraska has been having heavy rains and consequently Omaha has received relatively more hogs than any other market.

The following quotations are for hogs:

Choice, 250@300 lbs	$8.30@8.40
Choice, 200@245 lbs	8.30@8.40
Medium weight	8.25@8.40
Light weight	8.20@8.40
Common to fair	7.00@8.25
Stags	6.75@8.25
Boars	4.50@6.50
Bulk of sales	8.25@8.40

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week
Monday	$8.10@8.30	$8.25@8.47½
Tuesday	8.00@8.15	8.30@8.50
Wednesday	8.05@8.20	8.25@8.50
Thursday	8.05@8.25	8.20@8.45
Friday	8.05@8.22½	8.15@8.40
Saturday	7.90@8.05	8.15@8.32½

Advance and Setback in Sheep.

Sheep prices ten days ago were at the highest levels of the season, spring lambs selling well above $9.50. In the past few days prices have receded 75 cents for lambs and 25 to 40 cents for sheep. Increasing supplies of spring lambs from the south and eastern markets have caused the setback in prices. In the next two





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For sale. Ten males; bred gilts and small pigs. White faced, Spanish and S. S. Hamburg eggs, $1.00 for 15.
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Wanted

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Little pigs only a few weeks old are often found loaded with worms. These dangerous blood-sucking parasites get into the stomach and intestines causing indigestion, constipation, stunting the animal's growth and laying the foundation for hog cholera and other contagious diseases. Don't let these deadly pests get a foot-hold on your farm. Don't let them rob you of your whole season's profits. I'll rid all your stock of worms. I'll prove it right on your own farm before you pay. I'll prove it or no pay.

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is a wonder-working medicated salt with which farm animals doctor themselves. It requires no dosing, no drenching, no starving, no trouble at all. Just fill out the coupon below—tell me how many head of stock you have and I'll ship you enough Sal-Vet to last all your stock 60 days. You simply pay the freight charges when it arrives. When the 60 days are up report results. If it fails to do what I claim I'll cancel the charge. You won't owe me a penny. Send the coupon TODAY.

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"I have fed **Sal-Vet** to 16 head of pigs. 8 of these were hutchered last week, and averaged 280 lbs. net; the other 8 will easily make 300 lbs. each. My neighbors' hogs within 200 yards of mine, are dying with cholera."—Dr. O. McLahlan, Sec. Board of Health, Oolitic, Ind. 183

PRICES
40 lbs., $2.25; 100 lbs., $5; 200 lbs., $9; 300 lbs., $13; 500 lbs., $21.12. Never sold in bulk; only in Trade-Marked Sal-Vet packages. *Shipments for 60 days' trial are based on 1 lb. of Sal-Vet for each sheep or hog, and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular size packages. Get the genuine SAL-VET.*

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Practical cattle for both beef and milk. Just the kind the farms of the country need, and with breeding and conformation to make show cattle if you want them. I show my breeding stock successfully, but no stock is ever crowded enough to hurt it.

Pleased to show stock, quote prices and answer inquiries at all times.

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months spring lambs and grass fat sheep will comprise the movement. Trade in stock and feeding sheep will not attain a very large volume before the latter part of July or the middle of August. Spring lambs are quoted at $7.75 to $8.75, clipped lambs $6.50 to $7.25, clipped sheep $4.50 to $5.75.

Wheat Prospects Continue Good.

Hessian fly, rust and army worms in limited areas have been reported but the general condition remains good with plenty of moisture in all states except parts of Missouri. There has been no general depreciation in the condition in the past 30 days. Spring wheat has been sown under favorable conditions. Cash prices for wheat are lower, as some wheat has already been harvested. Corn is lower and oats weak. Prices for feeds are lower also.

Wheat—	
No. 2 hard	.88 @91½
No. 3 hard	.87½@90
No. 2 red	.90 @91½
No. 3 red	.88½@90
Corn—	
No. 2 white	.71½@72
No. 3 white	.69 @70
No. 2 mixed	.69½@70
No. 3 mixed	.68 @69½
Oats—	
No. 2 white	40½@ 41
No. 2 mixed	40¼@ 40½
Rye	60
Chop	1.35
Bran	1.05
Barley	51½@ 54
Shorts	1.14 @1.21

New Alfalfa Offered.

New alfalfa has been offered in limited quantities but it was hot and out of condition, so that a price range has not been established. Old timothy and clovers are lower, other hay unchanged.

Quotations are as follows: Alfalfa fancy, $17.50; choice, $16@17; No. 1, $14.50@15.50; standard, $12.50@14; No. 2, $8.50@12; No. 3, $5.50@8; prairie choice, $17.50@18; No. 1, $15.50@17; No. 2, $13@15; No. 3, $7.50@12.50; timothy choice, $17.50@18; No. 1, $16.50@17; No. 2, $14.50@16; No. 3, $12@14; clover mixed, choice, $16@16.50; No. 1, $15@15.50; clover, choice, $13@13.50; No. 1, $11@12.50; straw, $5.50@6; packing hay, $5@6.

W. L. Blizzard of the department of animal husbandry in the Kansas State Agricultural College has been selected as judge of draft horses at the Utah state fair.

A Department For Women

VISITING NURSE FOR RURAL SCHOOLS AND HOMES.

In order to give a practical test to the value of a visiting nurse in rural communities, representatives of the rural organization service of the department helped the people of Chilton County, Ala., to organize for the purpose of appointing a visiting trained nurse and meeting her salary and expenses. For this purpose the sum of $1,500 was raised, of which the county board appropriated $500, the school board $500, and private individuals $500. The services of a visiting nurse, certified by the National Red Cross Society, were secured at a salary of $960 per year and actual expenses. In the expenses were included the purchase of a horse and buggy and stabling and feed for the horse.

In order to enable the county to appoint the nurse as a county officer, the nurse applied for and obtained a third-grade teacher's certificate, which enabled her to be appointed as assistant county superintendent of schools. To direct her work and disburse the money raised and appropriated, the following committee was appointed: The county health officer, county superintendent of schools, county agent for farmers' co-operative demonstration, county head of the girls' canning club work, and a local physician.

The nurse has been actually engaged in her work now for more than one month. Her work has been as follows:

School visiting.—By degrees she is visiting every rural school in the county and at these schools is making an inspection of pupils to detect signs of contagious diseases and to discover defects in teeth, presence of adenoids, diseases of the eyes, or similar physical conditions calling for medical or other attention. In addition she inspects the school grounds with special reference to sanitary appliances in their relation to the spread of disease. She also lectures to the teachers and pupils on methods by which diseases are carried or spread, giving particular attention to the danger of the fly as a carrier of typhoid and the necessity for keeping water supplies and food uncontaminated.

Mothers' meetings.—Wherever opportunity is given, the nurse holds mothers' meetings at which she talks and gives demonstrations on care and feeding of infants, home and general hygiene and sanitation, with special reference to sources of diseases and measures for preventing their spread.

Sick nursing.—In special cases where rural patients are dangerously ill, the nurse, at the request of doctors, visits the home and assists the physician in getting the patient over the crisis.

According to reports the work of the nurse is meeting with great favor on the part of the authorities and country residents.

AN END TO THE "GUARANTEED, ETC." DECEPTION?

The Department of Agriculture is sending individual official notices to over 58,000 manufacturers that on May 1, 1915, their guaranties filed under the food and drugs regulations will be stricken from the files and that thereafter the serial numbers assigned to such guaranties must not be used on the label or package of any food or drug. This action is in accordance with the regulations adopted on May 5, 1914, by the secretaries of the treasury, agriculture and commerce, which abolish the use of the guaranty legend and serial number on foods and drugs. The ground for this action was that the legend "Guaranteed by (name of guarantor) under the Food and Drugs Act, 1906," was understood by many consumers to mean that the Federal government had passed upon and certified the excellence of the article so labeled, whereas the legend and serial number were merely a guaranty on the part of the manufacturer to his dealer that the manufacturer would assume full legal responsibility for his goods.

By way of suggesting a good new meat animal for the swampy sections of the South, the Southwestern Stockman Farmer prints the pictures of a pair of dwarf hippopotami, natives of the swampy lands of Liberia. These animals are about like hogs for size and their flesh is similar.

FIVE MONTHS OF EGG-LAYING CONTEST.

Secretary Quisenberry, in charge of the National Egg-Laying Contest at Mountain Grove, Mo., in which about 20 kinds of chickens are represented (100 pens in all, ten hens or pullets to the pen), reports that the total eggs laid in April was 20,251, which makes the grand total for the five months 69,602 eggs. The average for all hens, good and bad, was 20 eggs each for the month. The English White Leghorns are still leading but the S. C. Reds gained on them this month. White Wyandottes, White and Buff Orpingtons, Barred and White Plymouth Rocks, Anconas and Buff Leghorns are also making exceptionally good records. Other varieties are improving and we expect to see many of those which were slow to start, continue to lay after many others have gone broody or quit laying. The leading hen is a Black Rhinelander entered from California but imported from Germany. Most of the Rhinelanders have never been in the best condition. The R. C. Black Minorca and the Rhinelander females resemble quite a bit, the Black Minorcas being the larger. The R. C. Black Minorcas entered this year have not really had a fair show. Two of the pens appeared to be immature when they arrived here and all three arrived in rather poor condition.

The following table shows the breed, origin and five-months' record for the highest ten pens (10 birds to the pen):

Per Number	Breed and Origin.	Number of Eggs Laid
0	S. C. White Leghorns, Eng	1073
47	S. C. Reds, Missouri	944
18	White Wyandottes, Penn	893
38	White Orpingtons, Penn	867
79	S. C. White Leghorns, Penn	857
53	Barred Plymouth Rocks, Ill	853
36	Buff Orpingtons, Texas	841
34	White Orpingtons, Ohio	835
5	Anconas, Missouri	829
1	Buff Leghorns, Missouri	825
51	White Plymouth Rocks, Ark	825
24	White Wyandottes, Eng	813

Two pullets laid 30 eggs each in 30 days in April, White Orpington pullet, 895, from Missouri, and S. C. White Leghorn pullet, 611, from Nebraska. No one pullet has yet gotten very far in advance of the other individuals. Quite a large number have over 100 eggs each to their credit and the leading one has 122 eggs. The record of the highest twelve individuals for the five months past is as follows:

Hen No.		Eggs Laid in 5 mo.
118	Rhinelander	122
05	S. C. White Leghorn	120
180	White Wyandotte	119
524	Buff Plymouth Rock	116
675	S. C. White Leghorn	116
99	S. C. White Leghorn	115
42	Buff Leghorn	114
2	S. C. White Leghorn	114
653	S. C. White Leghorn	111
471	S. C. R. I. Red	110
456	R. C. R. I. Red	110
566	Barred Plymouth Rock	110

A Kansas bulletin says that corncob rot, first discovered in America two years ago, has been found in Kan-



RAISE PIGEONS

They Pay Dollars while Chickens pay cents.

The young, 20 to 25 days old, sell for 40 to 60 cents each (according to the season). The city markets are always clamoring for them.

Each pair of Pigeons will raise 18 to 22 young a year.

They will clear you, above all expenses, $5.00 a year per pair. They breed the entire year. Twenty minutes daily will care for 100 pairs.

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as by L. E. Melchers, plant patholoist of the Kansas experiment staon. Affected ears may do to feed stock but the cobs become limber. he cob pipe corn counties of Missuri had better declare a quarantine for who wants a limber cob ipe?

EXT CONTEST STARTS NOVEMBER 1, 1914.

To the American Breeder:—Many ntries are already coming in for the ext National Egg Laying Contest to egin November 1, 1914. We would ke to reserve places for all who dere to enter pens. About the same ules will govern as in the past, exept that each pen will consist of five ullets and one reserve. We had to rn down several hundred entries st year, so we advise all to reserve ens as soon as possible. There can e no doubt about the benefits of a ntest conducted as ours is conducti. The average production has inreased 20 eggs per hen during the ast three yearly contests.—T. E. uisenberry, Director State Poultry xperiment Station, Mountain Grove, o.

DR. WATERS ON GOVERNMENT MISSION.

President Henry J. Waters of the ansas Agricultural College, accomanied by Mrs. Waters and son, has one on a five months' trip to the hilippines and other parts of the astern World. Doctor Waters will end most of the time in the Philipine Islands, making special investigaons of the bureaus of agriculture and education for the insular governent. Many people think this work preliminary to the offer of some nportant position (possibly that of ecretary of Agriculture) to President Vaters. Dr. J. T. Willard, dean of cience, will be acting president roughout his absence.

PATTERNS FOR WOMEN AND CHILDREN.

SPECIAL ANNOUNCEMENT. We ill forward, on receipt of 5c the Sumer number of the Home Dressmaker, lustrating the latest embroidery degns, as well as hundreds of designs garments for Misses, Women and hildren, and containing two pages of ints on Home Dressmaking.

9678. Child's Rompers. Cut in 4 zes: 3, 4, 5 and 6 years. It requires yards of 36-inch material for a year size. Price 10c.

9958. Ladies' Shirt Waist. Cut in sizes: 34, 36, 38, 40, 42 and 44 inches ust measure. It requires 2⅞ yards 44-inch material for a 36-inch size. rice 10c.

9957. Ladies' Bungalow Apron. ut in 3 sizes: Small, medium and rge. It requires 4½ yards of 36-inch aterial for a medium size. Price)c.

9945. Dress for Misses and Small Vomen. Cut in 4 sizes: 14, 16, 17 and 18 years. It requires 5¼ yards of 44-inch material for a 14-year size. Skirt measures 1⅛ yards at the lower edge. Price 10c.

9952. Child's Dress with or without Tucker. Cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2⅛ yards of 36-inch material for a 4-year size, with 1 yard for the guimpe. Price 10c.

9943. Boys' Play Suit with Knickerbockers. Cut in 4 sizes: 2, 3, 4 and 5 years. It requires 2⅜ yards of 44-inch material for a 3-year size. Price 10c.

9947-9946. Ladies' Costume. Waist 9947 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 9946 cut in 5 sizes: 22, 24, 26, 28 and 30 inches waist measure. It requires 5½ yards of 44-inch material for a medium measure, for the entire dress. TWO separate patterns 10c FOR EACH. The skirt measures about 1⅛ yards at the lower edge.

9829. Dress for Misses and Small Women. Cut in 4 sizes: 14, 16, 17 and 18 years. It requires 4½ yards of 44-inch material for a 16-year size. Price 10c.



Pattern Coupon.

In ordering patterns, be sure and fill in name and address plainly, also number and size of pattern desired.

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Address all orders to Pattern Department, American Breeder, 225 West Twelfth Street, Kansas City, Mo.

LIGHTNING RODS QUESTIONS AND ANSWERS.

To the American Breeder:—The protection of buildings from lightning is undoubtedly as important as the protection of transmission lines, still it is a matter to which little attention has been given. Where protection for buildings is provided at all it is usually inadequate, and in many cases the danger is increased rather than diminished. The following are thought to be the correct answers to some of the questions usually asked about lightning rods:

1. Should buildings in cities have lightning protectors?

Ans. No. On account of the increasing number of steel buildings and overhead wires, city buildings are reasonably safe. Contrary to the general belief, telephone and power lines offer splendid protection against lightning.

2. How many rods should be provided?

Ans. The more the better. Four rods and four ground connections should be satisfactory for a building 40 by 75 feet.

3. What kind of material should be used?

Ans. Probably copper is a better material where the air is full of gas and smoke. There seems to be no advantage in having a stranded cable. A solid rod is as efficient and is cheaper. In the country galvanized iron rods or even galvanized iron pipe would be entirely satisfactory. The claim frequently made that copper should be used on account of its high electrical conductivity is not correct since the actual ohmic resistance of the material used has little to do with the efficiency of the rod.

4. What should be the shape and size of the rods?

Ans. Round rods or pipe are preferable. Sharp bends should be avoided as far as possible. The rods should terminate in a number of points five or six feet above the top of the roof. There is very little advantage in expensive sharp pointed polished points.

5. How should ground connections be made?

Ans. In the majority of cases a galvanized iron pipe driven a few feet into the ground is entirely satisfactory.

6. Is it safe to stand near a lightning rod during a storm?

Ans. No.

7. Is it safe to stand in a draft during a storm?

Ans. No.—F. J. Rankin, Colorado Agricultural College, Fort Collins, Colo.

SUMMER CARE OF THE FEET.

"This is the time of year when many people wear low shoes as a matter of necessity and of comfort, says Charlotte A. Baker of the Colorado Agricultural College. For the individual who is annoyed with excessive perspiration, or the sensitiveness that comes from our alkali dust, the formula used in the German army for "sweating and sore" feet is helpful. This is as follows: Salicylic acid, 3 parts; magnesium silicate, 87 parts, any bland powder to make 100 parts.

If you are a tender foot and can arrange the time at noon, a hot soapy foot bath, fresh stockings and different shoes add greatly to one's comfort.

TO IMPROVE CATTLE AFTER THE TICK IS ERADICATED.

During the seven years that the U. S. Department of Agriculture has been campaigning against the tick fever which annually kills more cattle in the South than all other diseases combined, an area of 198,802 square miles has been freed from the tick. Details of this work against a disease that is estimated to cost America $40,000,000 a year are printed in a new circular of the department entitled, "Effects of Tick Eradication on the Cattle Industry of the South."

Now comes the question, what plan is best for farmers in these redeemed areas to improve their stock? The following are some of the department's suggestions in brief:

1. Get Bermuda or carpet grass started on all pastures. Improve the pastures further by sowing some lespedeza and burr clover on the uplands, and some alsike clover, white clover, and **Paspalum dilatatum** on the bottom lands.

2. Grow more hay and other forage on which to winter the stock; or, if a farmer has as many as 50 or 75 cattle, erect a silo.

3. Bring in good bulls of the beef breeds to use for grading up the native cattle. Do not try to raise pure breds to begin with.

4. If not able to buy a bull for individual use, form a bull club, and let each member buy stock in the bull and place him on some central farm; or let one man buy the bull and the others obligate themselves to breed their cows to that bull.

5. Form a community club or a county live-stock association, so that members may exchange bulls every two years in order to get the maximum service from a bull without breeding him to his offspring. The members of a club should agree on what breed they want to use and all get bulls of the same breed, in order that the community may develop a trade and make a reputation as growers of this breed.

6. If the bull is young, do not let him run with the cows, but keep him in a separate pasture and give him some feed each day so as to keep him growing.

7. Do not let a young bull serve a cow but once. One service is often better than a half dozen.

8. Heifers of the beef breeds should not drop calves until they are at least 30 months of age, and should be bred accordingly.

9. Breed the cows so as to calve during February, March and April.

10. Castrate all male calves at an early age, either before or at weaning time.

11. Wean the calves in the fall, about the time the cows are taken from pasture. Give them plenty of good, bright hay, silage if available, and about 1 pound of cotton seed meal per day for the first month after taking them from the cows. After that they can be wintered on roughages produced on the place, with a little concentrate. Cowpeas or lespedeza hay is especially good for the calves, although there is no better roughage than silage.

$6.81 PROFIT PER BEEF CALF IN THE SOUTH.

The average profit for a beef calf raised under average Southern conditions is $6.81, according to experiments which the U. S. Department of Agriculture has been conducting, working with the State of Alabama. The experiments have extended over three years with the object of learning what it would cost to raise beef calves to an age of about nine and one-half months, as well as to determine the profit in finishing these calves for the market during the winter months and selling them when about twelve months old.

The herd on which the test was made was free from tuberculosis and was rapidly being made free from cattle ticks. Every animal on the farm was dipped in a solution of arsenic every two weeks. No ticks were seen on the calves during the progress of the test.

In some sections the "army worm" has come to the aid of the "crop killer" and the worst part of it is that the pair is "putting over" some really bullish items of crop news. Nobody (excepting those on the wrong side of the speculative market) loves a "crop killer"—or an "army worm."

Questions and Answers

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

Sign Your Name and Address to all Questions.

1083—ACCLIMATING A STALLION—If a man takes a stallion from Central Nebraska to Northeastern Minnesota, will he be less sure than he was in Nebraska?—Nebraska Subscriber.

REPLY.—The change in climate should not be serious for that distance. Condition in Northwestern Minnesota are somewhat different from those in Central Nebraska. One should see that the feed and water are practically the same; the treatment and management should be similar. It is not advisable to change feed or management abruptly. It would not be as serious to take a horse North as it would be to bring him South. There might be a little difference in the temperature which would cause him to take cold more readily.

1084—GRASS FOR STALLION—Will it hurt a jack or stallion to eat grass in breeding season? I give my jack and stallion a little grass every day. Are there any weeds that will hurt the breeding stock?—Kansas Subscriber.

REPLY.—No, it is good for them in moderation. You will have to use your own judgment as to the weeds. Ordinarily a stallion or jack will not eat poisonous weeds if they are permitted access to plenty of good grass. Again there are localities where poisonous plants abound so one need be careful under such circumstances.

1085—THREE-YEAR OLD SERVICES—I am sorry to trouble you again with a question in breeding. I would like something definite with regard to breeding a three-year-old horse. Some people say 35 mares are enough, others four services a week and so on. Now would it not be simpler and more correct to say how many services per month and how long that may be kept up. Since 20 mares, of which only 25 per cent will settle at first service, is a lot harder on a horse than 40 or more that settle almost at once, as he will have to cover some of these 20 perhaps four times. Also a lot must depend on the colt himself, as a well matured colt for his age must be able to foal more than a growthy, rangy one which will likely make a larger horse although a slower grower. I have an extra good colt and a good server, but he has not had enough exercise during the winter. I bought him in July. I give him four miles a day in the morning and he is out the rest of the day in a large paddock. How would you advise using him? I may say he was second at the International at Chicago in 1913, in the two-year-old Clydesdale class. A lot of people wish to use him but I don't want to overdo him this year.—Canada Subscriber.

REPLY.—It is better to underbreed immature stock than to overdo them. Allowances must be made for rapidly growing animals. There is a difference between a Percheron and a Clydesdale. Percherons are usually more matured at three years of age than are Clydesdales. One service every other day and not to exceed five services in a week, with a limit of 40 services for the average three-year-old, might be about right for one breeding season. I think you are giving sufficient exercise at the present time. The weather conditions in your country makes it difficult to give enough exercise during inclement weather. As your season is much later than ours, we would suggest that you use capsules with this horse during the remainder of the season. If you do not care to go to that bother, you could at least use an extractor to transfer the semen from the mare served to an extra mare each service. This would double the capacity of your horse.

1086—UNTHRIFTY MARE—I have a good Percheron mare seven years old that rubs hair off of her side near the top of withers and little bumps form. She has had poll evil; also fistula, but both are cured. Pipe formed half way down the shoulder under the collar; also a sack formed at lower end of pipe; when opened it run almost a quart of clay colored corruption. I think both were caused by this hard rubbing. Appetite is not good; hair looks rough and she urinates oftener than the other mares. She had better treatment than my other mares but is thinner. The most of the roughness fed was millet hay. Is millet hay good for brood mares? She found a colt last year but will not this year. I bred her both spring and fall. I use her moderately. I have her on pasture now. Please advise me.—Arkansas Subscriber.

REPLY.—Pasture is the proper place for this mare with only a moderate amount of grain. You should give her an opportunity to recuperate and get into a thrifty condition. Give her three-fourths of an ounce of Fowler's solution in her feed morning and night for six weeks.

1087—PARTIAL PARALYSIS—I have a valuable stallion weighing 1,900. When traveling on the road he carries his penis about half way out. Is this a habit or is it from a cause? How is it remedied?—Oregon Subscriber.

REPLY.—The muscle that retracts the penis is no doubt either weak or partially paralyzed, and it is doubtful if any local or internal treatment would be of any service in this case. If the horse has to be roaded as indicated, it would be well to try a suspensory during the trip. Regular, systematic exercise may improve the tone of the muscles in the event you do not allow him to become unduly fat.

1088—MARE FAILS TO SHOW HEAT—Can you tell me what to do to make a mare come in heat? I have a customer that has a mare that won't come in heat. She is looking good and only five years old. I have good success in forcing them but would like to know if there is any other way.—Iowa Subscriber.

REPLY.—Breed your mare with a capsule and let her go.

1089—RUST ON OAT STRAW—Is rust on oats straw a probable cause for mares losing their colts? I had 12 mares lose their colts last winter and early spring and can account for it in no other way.—Illinois Subscriber.

REPLY.—We are not in position to know whether of not the rust was the cause of the several cases of abortion or not, but one thing is certain and that rust deteriorates the feeding value of any straw and should not be fed if it can be avoided. It may be that you have infectious abortion among your stock, which would require a personal examination to determine.

1090—LOSING COLTS—I have had quite a lot of bad luck this spring with mares losing their colts; colts coming weak. Have had three come dead and three that died in a few minutes. One man said the horse didn't get enough exercise. I don't think that, as he runs loose in a big paddock all the time. He has lots of life and is going most of the time. I would be very thankful for your advice.—Iowa Subscriber.

REPLY.—Your stallion may have made too many services. A reasonable number of services, even with the exercise he now gets, should not result in the loss of colts as reported. You had better investigate the condition of the mares in your community and see if that is not your trouble. If your mare owners will read the American Breeder it is not likely you would be reporting this loss. No matter how many services or how little exercise he has if the spermatozoa is strong enough to fertilize, and the mares are properly handled, there will not be very many colts lost in this manner.

1091—BREEDING QUESTION—Are mares hard to get in foal by a horse after breeding them to a jack?—Illinois Subscriber.

REPLY.—They should not be, in the event the jack was healthy and did not impart to them any venereal disease.

1092—USING THE MICROSCOPE—Would like to ask you if a novice can use a microscope to any advantage as the horse I have just purchased an interest in is not a very sure foal getter. He has been kept so fat and has not had enough exercise. He has been worked this spring and is not so fat.—Colorado Subscriber.

REPLY.—Any ordinary man should be able to use the microscope sold by the Kansas City Impregnator Company which is accompanied by printed directions making it very plain. This will give you the facts in the case concerning your horse.

1093—HEMORRHAGE—I have a mare, due to foal July 1st, which at the present time bleeds some. Otherwise the mare appears to be normal.—Idaho Subscriber.

REPLY.—Such cases necessitate a personal examination in order to determine the cause and source of the hemorrhage. The mere fact that the mare bleeds does not aid in a positive diagnosis, hence it would be folly to even suggest treatment.

1094—USING ARTIFICIAL METHODS—I am standing a Belgian horse. Last week I had more work than the horse could do, so I got hold of an impregnator and used it on a few. One fellow got sore because I used what he termed a "shot gun," and said he would give $50 rather than had it done that way. He says an impregnator is no good. Could you give me some good authority on this subject? I have a hard one to deal with. Where could I get information how to use capsules? I am just starting in the business and have only received a few copies of your paper.—Oregon Subscriber.

REPLY.—We are sending you under separate cover back copies of the American Breeder giving you the information asked for. If all of your customers were reading the American Breeder you would not have much difficulty with any of them. Lack of knowledge is bothering this individual much, or perhaps some other individual, affected in the same manner, has tried to use an impregnator with those "easy to use" methods which the unscrupulous dealer sells the horse breeders. You can well afford to send in the subscriptions for a very large number of your customers so that they will get familiar with this proposition. They are just as anxious for the truth as you are.

1095—INJURED TENDONS—I have a neighbor that has a horse broken down in the tendons while on the race track; has got knots on the cords of both front legs between the knee and fetlock. Has been lame for about two years; one leg a little worse than the other. Would it be safe to buy this horse for hard delivery work? Is there a remedy for himv—Kansas Subscriber.

REPLY.—Your statement concerning the present condition of the animal should be sufficient answer to the first part of your inquiry. Such cases can often be made serviceable by making use of vesicants, or perhaps better the firing iron, and giving a summer's run at pasture.

1096—DIRTY SEMEN—I am using a Natural Temperature Semen Extractor, and sometimes when I take semen from the vagina and fill a capsule, I see little black specks of dirt. Is it all right to use it or not?—California Subscriber.

REPLY.—Wash the vulva before the natural service is made. Use bran mash on your stallion to wash the penis. Take bran and water mixed and put handful after handful up in the sheath and work it all around so that all of the surface has been touched, then let the bran come o at its leisure. Do this every we until the penis has a nice, smooth a pearance; then you are not liable have any dirty semen. This part ular dirt may not have destructi germs in it but when the penis of t stallion is dirty, it is more liable accumulate infection of a serious ture.

1097—HOW LONG DOES SWE CLOVER LAST—I am told that if swe clover is not allowed to bloom, that will continue to live and grow li alfalfa. Will some one tell me if t is so?—Arkansas Subscriber.

REPLY—The most common of t sweet clovers (Melitotus alba) t tall, white flowered kind, is a bie nial. One of the yellow flower kinds is also a biennial and a small kind is an annual. This means th no sweet clover plant lives over tw

Warranted to Give Satisfaction.
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Has Imitators But No Competitors.
A Safe, Speedy and Positive Cure for
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As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable.
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"VISIO" will convince any horse owner that it is the best remedy for defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed use "VISIO" under our money back GUARANTEE
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ears (the smaller yellow kind only ne year), so that if no plants were llowed to blossom and produce seed he life of your sweet clover field vould soon be ended instead of pro-onged. The writer has seen small atches of sweet clover gradually illed out, as a result of stock nip-ing off the blossoms so that very ittle seed was formed. If you can et Farmers' Bulletin 485 from the J. S. Department of Agriculture, Vashington, D. C., it will give you nuch more information on this crop.

1098—PROBABLY MASTURBATION—I want your opinion and remedy for a tallion that I traded for some time ago. ot him for a teaser. He is a Per-heron grade; 16½ hands high; weight bout 1,700; seven years old. Next day fter I got him I tried to serve a mare vith him. He gets ready and mounts ut wont' enter. He mounts four or five imes. The second mare I tried to serve e made a discharge of blood before e entered. I haven't tried him since. drive him some and I notice that he asses blood very often when he rinates. He seems to be healthy very other way.—Missouri Subscriber

REPLY.—Your stallion is probably nasturbating. We suggest that you ave your veterinarian make an ex-mination for the cause of the blood ischarge.

1099—PRESERVING FENCE POSTS—I notice in your issue of May 5 that ou refer to some preservatives for osts. I am very desirous of using cot-onwood posts. If the results that you ention have been put in bulletin form lease inform me where I may obtain copy of the bulletin.—Texas Sub-criber.

REPLY.—J. B. Frisbee of the Colo-ado Experiment Station, who was our uthority for the information on fence ost preserving, refers you to the Iowa xperiment Station, at Ames, Iowa. lso to Farmers' Bulletin No. 385, De-artment of Agriculture, Washington, . C.

1100—BREAKING A YOUNG JACK—ast year I shipped a costly jack from entucky, and as he will not be three ears old until July, and has never erved a mare to my knowledge, I am little dubious as to how to handle im. He is a big fellow—nearly 16 ands now—not fat but in fair condi-on. If you would give me a little nformation as to how to handle this nimal I would be very much obliged. e has a fine disposition but seems mid. I have turned him out with a lly or two whenever the weather ould permit, that is, during the day me, and I now keep a yearling filly ith him all the time. Have never ied to breed him to a mare. He acts s though he would serve one, but ould be easily bluffed away. Would ou suggest using a pit, blindfolding ie mares, or what? I have handled lenty of stallions but never a jack. his fellow stands me $1,100 and I ould like to take special pains with im if I knew how.—Montana Sub-criber.

REPLY.—You should have taken his jack away from fillies when he as a yearling. You may have diffi-lty in getting him to make a serv-e as he has evidently gotten kicked fficiently to teach him not to go ose to a mare or a filly. Get a mare ot too large for him that is in good eat. If you wish to use him when ares are hobbled, try to get him to erve in this manner. If you expect use a pit, put the mare in the pit; ut a twitch on the mare so she will not make any disturbance; lead him up to the mare and try to get him to serve. It may be necessary to get some of the fluid from the vagina of the mare and let him smell your hand slightly. Allow him to put his head upon the mare so he will know she is not going to kick. If you do not get a service within a short time put him back in the barn and take the bridle off; then go get him again. It is not a good idea to let him stand around a half day; he will expect to do this later on if you do. Be very gentle with him and do not scold or whip him. It might be profitable to employ the services of some qualified jack man to make the first service for you. If you fail to make a good first service out of this jack it will be expensive and a lasting lesson.

1101—DEFORMED COLT—I have a pure bred Percheron stallion 10 years old. One of his colts this spring is deformed. Its penis is just where its testicles should be, or a little back of them. Can you give any cause or has the stallion anything to do with it? This stallion has never been overdone. The mare is a grade and is in good shape. This stallion has always been a good colt getter.—Kansas Subscriber.

REPLY.—These things occasionally

(Continued on page 15.)

Automatic Stallion Bridle



Manufactured Exlusively by Peter Young, Assumption, Ill.

Controls the most unruly stallion without injury and will not hurt the kindest and most docile horse. Fits the largest draft stallion or the smallest roadster without adjustment. Made of the best leather. Shipment will be made on receipt of order, as I have them in stock at all times.

Order one, and if not satisfactory, return it and your money will be cheerfully refunded. **Price $3.50, with order.** Can be sent by mail.

Stallion Service Record Book

This book has 200 pages like the specimen page in this ad. It is substantially bound with a good, strong waterproof cover. It has 20 index pages for keeping the owners' names in alphabetical order so that any name or mare can be found quickly.

The breeding contract at the bottom is the strongest possible kind of a note. It is a big help in making collections, as nearly every state has a law for the collection of labor debts without exemption, and this is a contract to pay for services rendered. Before it is signed run a pencil through two of the lines in the contract, leaving the line that makes the kind of a contract you want. Many will sign a contract who would refuse to give a note.

This book has a calendar and a gestation table. It can be used for several sires without carrying more than one book. This is the most complete and up-to-date service record book printed. It is a nice size and can be carried easily in any pocket. Every breeder should have one. After improving it for several years, the result is this most satisfactory book. A complete new edition is just out. Although this new book has double the capacity of those offered heretofore, it sells at the old price. It is not bulky, as it carries no advertising or other unnecessary matter. It will be the standard record book used by the leading breeders.

If you are not satisfied with the book or do not consider it the best and cheapest on the market, return it and your money will be cheerfully refunded. The price is 50 cents; six for $2.75; postage prepaid. Send all orders to the

GRAHAM PUBLISHING CO.
225 West 12th St., Kansas City, Mo.

Sire Lucifer
Mare Belle Color Gray Age 6
Marks Left front foot white
Womb {Closed / Healthy / Loose} Height 16 hands Colt {Yes / No}
Mare Owner John Brown
P. O. Kansas City, Mo.
Capsule

DATE BRED.

Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1									
22									

RETRIED

	15								
	22								

BREEDING CONTRACT

$15.00 Date Feb. 1, 1914

For services rendered, I promise to pay (fill in with stallion owner's name)
_____ or assigns fifteen dollars
~~When above described mare is known to be in foal~~
~~When above described mare delivers a living colt~~
When colt of above described mare stands and sucks
or before mare changes ownership, mortgaged or leaves county.

Signed John Brown

Page 16

Above shows exact size of page and the way to properly fill out the blank for one form of breeding contract, scratching out extra lines.

HUMANE STALLION COLLARS



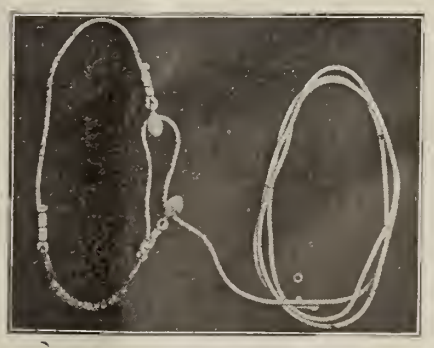
the only kind suitable for working on a stallion. We make them to fit any size and kind of trace. In ordering describe style of hames you use. If single trace hames be sure to state width of trace and length of hame tug from hame to buckle. If you use chain or Moeller hook traces, so state.

Sizes 15 to 25 inches, $7.50 each; larger than 25 inches, 50 cents extra.

TWO WHIPS YOU CANNOT BEAT

No. 10—Heavy, high-test rawhide center, from butt to tip; rubber lined; double waterproof covered, 6½ feet long. Price..$1.00

No. 11—Special Stock Yards Horseman's Whip, full length, 10½ feet; lash 5 feet; 12 nickel ferrules. Price $1.00



"CONQUEROR" STALLION BRIDLE

Guaranteed to Hold Any Stallion or Jack.

This bridle is made of especially selected material. Can be adjusted to fit any size head and for either hard or tender mouths. Just the thing for breaking runaways or kickers. Price, each $2.50

CAUTION:—Never tie an animal with this bridle. If he got to pulling he could split his head.

Every One of the Above Articles Sold On a "Money Back" Guarantee. Cash Must Accompany Your Order. We Prepay Shipping Charges.

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GLANDERS VACCINE NOT SATISFACTORY.

That glanders vaccine is not effective in rendering horses immune from this dangerous disease is the conclusion reached by specialists of the Bureau of Animal Industry as a result of extensive experiments with horses and other animals. The experiments show that while mallein is highly effective as a means to discover the presence of glanders in a horse, neither mallein nor glanders vaccine has shown any positive value in curing animals sick with glanders.

In the experiments 17 horses were used. These were stabled under such conditions that vaccinated and unvaccinated horses could be brought into contact with a good discharging case of glanders. Mallein and eye tests were used carefully to determine the results. The investigators report the following conclusions, which appear in a professional paper published by the department entitled "Immunization Tests with Glanders Vaccine":

The results obtained by these investigations appear to be sufficient to demonstrate the unsatisfactory results of this method of immunization. Of the 13 immunized animals, 9 contracted the disease from natural exposure, which is a large proportion when it is considered that all animals were aged and kept most of the time during the exposure out of doors. Of the 4 remaining immunized horses, 1 died of impaction after the second vaccination, while the other three animals were killed August 20, 1913, in order to ascertain by post-mortem examination the possibility of glanders existing in these animals which had given positive serum reaction, but which had returned to normal. In artificial infections of the vaccinated animals they showed no resistance whatsoever, as both vaccinated horses promptly developed an acute form of the disease from touching the Schneiderian membrane with a platinum loop which had been touched to a growth of glanders bacilli. For the present, therefore, it seems advisable to abstain from immunizing horses by this method, as a practice of this kind may do more harm than good. Owners having horses which are supposedly immunized would naturally become careless, thinking their animals were resistant to the disease, and thus even a better opportunity would be offered for the propagation of the disease than if the horses were not vaccinated. Furthermore, the fact that the blood of vaccinated animals can not be utilized for serum tests for two or three months after the injections is also a great disadvantage in the eradication of the disease.

As a result of this preliminary work, it appears that the control and eradication of glanders must still be dependent upon the concentration of our efforts in eliminating infected horses and the adoption of proper precautions against the introduction of infected animals into tables free from the disease. The results achieved in Germany, Austria and Canada by these methods have proved very encouraging, and no doubt if executed in the same spirit in this country a marked reduction in the cases of glanders would result.

STRAIGHT TALK FROM COLORADO

To the American Breeder:—I have read every copy of the American Breeder for the last two years and have been greatly benefited; have learned a great deal from your paper. I never have bred by the capsule system. I have been handling stallions in this county for the last 26 years, mostly registered Percherons. I have a ton stallion that I will stand this year. I use these horses mostly with my own mares. I am very much in favor of a better law to protect the stallion owners. We have a license law in Colorado which I think is two-thirds graft. We pay big money for a license for good horses while scrubs go free, as a rule, and the country is full of them. Like many others, I have the highest praise for the American Breeder.—Colorado Subscriber.

SEEK BENEFIT OF OUR EXPERIENCE.

Dr. C. W. McCampbell, president of the National Association of Stallion Registration Boards, is called on by many states for information as to the



Dr. C. W. McCampbell, Secretary of the Kansas Stallion Registration Board and Head of the National Association.

working of stallion registration laws, and advice as to new enactments. Foreign countries, as well, have turned to this country for the benefit of our experience, one of Dr. McCampbell's latest inquiries having come from argicultural officials in Australia.

They asked Dr. McCampbell to outline this stallion registration law that is in effect in Kansas and tell just how it works out in practice. They wished to know the results of stallion license regulation in the twenty-two states represented in the National Association.

They also asked Dr. McCampbell to draft for them a practicable stallion law that would be fair to all parties concerned.

Some time ago ministers of agriculture of two of the provinces of Canada asked Dr. McCampbell to submit drafts of stallion laws to them. Both bills, as suggested by him, have since been enacted into law.

THE BELGIAN FOR SMALL MARES

To the American Breeder:—I have been reading the comments of the Montana subscriber's inquiry and will give you my own experience. Five years ago five neighbors and I bought a Belgian stallion. Our country was full of pony mares, smaller than the Montana mares, for I have had some experience with them. I bred mares as small as 600 pounds to this stallion and the improvement in our horses is wonderful. One of my neighbors weighed a coming two years old filly out of a mare weighing 1,050 pounds, and she weighed 1,250 pounds. Another coming three years old filly out of a 1,060 pound mare, weighed 1,315. All the neighbors and patrons are satisfied. This spring we sold the old horse and bought a young one to cross with these fillies, and even now the horse buyers are wanting to buy these fillies. They have the right conformation. The Belgian is hard to beat crossing with small mares.—C. L. Crabtree, Harper County, Okla.

PERCENTAGE OF MARES THAT BREED LIKE STALLION.

To the American Breeder:—I hardly think it right for me to get so much good information for such a little money, and contribute nothing, so will try my hand for the first time. I don't suppose what I write will instruct or interest any of the old breeders but I hope to help those starting in the business. Such men are, of course, anxious to get good brood mares. The following will help him in regard to what he should expect: Two-thirds of the mares divide it equally with the horse in creating the colt. The other one-third is divided into two equal parts, those that breed almost entirely after themselves, and those that breed after the horse. The latter are the good brood mares, one in six taking it the country over. This "one in six mar should be watched in a way, for is no doubt responsible in a gr measure for the many misfits we h in the horse line. She has led m a man to believe that a cross betw the small mare and large horse just the thing. It is a disappointm at the aforesaid rate.—J. T. A ander, Kearney County, Kansas.

WHITEWATER FALLS STOCK FARM



PUBLIC SALE WEDNESDAY JUNE 10

5 Percheron Stallions, 25 Percheron Brood Mares and Fillies
25 Holstein Cows and Heifers!

Sale on Farm Send for Catalog

J. C. ROBISON, Towanda, Kas.



2 Percheron Fillies, 1 Stallion

Colt For Sale; All Very Choice.

Marmotte (imported); 2 years old; 17 hands; 1,600 pounds; black and strictly good.

Martinique (imported); 2 years; 17 hands; 1,610 pounds; half sister to Marmotte and matches her nicely. These fillies are the highest type of Percherons.

The stallion colt (Horatio 101852, by Imp. Glacis (71473) 55260) a coming yearling; black; weighed 950 pounds at 8 months and is a fine prospect for a show stallion. A yearling filly from the same mare, and not as good a prospect, won first at the American Royal.

If you want something strictly good come and see this young stock and get prices. I am a breeder and want you to see my herd.

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Paramount Stock Farm

Breeds and Imports

Percherons, Belgians and Shires



Home of the Iowa and International Grand Champion FARCEUR 7332 (72924), the greatest Belgian stallion in the world today. He is proving an excellent stock horse. Send your good mares to him and raise the best. Always a select lot of stallions and mares for sale at prices that cannot be beat for high class, sound, 2,000 to 2,500 pound horses.

WM. CROWNOVER, Hudson, Iowa.

Homewood Stock Farm

We have just purchased from Ed Harper of Onarga, Ill., his entire herd Percherons consisting of weanling fillies and stud colts, yearling and 2-year-c fillies; some extra good imported and American bred mares, and the mother a sister of the champion American bred stallion at the 1909 International. T stock has the very best breeding, size and quality. Mares are all safe in fo and weigh 2,200 pounds. Everything will be priced to sell quickly.

This herd, with our other imported and American bred Percheron stallio and mares, gives our patrons over 60 head to select from. Come and see us. one can show you a better lot of horses and mares than we can, and rememt no one can undersell us.

We have also a few choice Belgian and Shire stallions and a choice pair 3-year-old Belgian mares weighing 3,800 in foal.

Homewood is conveniently located 23 miles south of Chicago on I. C. and F Four railroads. Suburban trains to and from the city hourly. Bell Phone, Hon wood 58W.

S. METZ & SONS, HOMEWOOD, ILL.

FIFTY STALLIONS AN MARES.



$250 to $1,000 Each. Write for my illustrat Circular telling why can save you money he purchase of Perc ron or Belgian stalli r mare.

A. W. GREEN, Middlefield, Oh R. R. Sta., E. Orwell, Penna. Ry., between As tabula and Warren.

PERCHERON AND BELGIAN Stallions. Can show the buyer stallion or 50, $450 and up. Some we 2160 pounds. For sale, part cash, b ance, 1, 2, and 3 years at 6 per cent R. I. LITTLE, Route 2, FAIRFAX,

BELGIAN, SHIRE AND PERCHER STALLIONS and mares, also Standard bred st lions and mares, $200 and up. E. Hamilton & Sons, Garden Grove, (Mention this paper). 23 miles S. of Charlton, Ia., 82 miles south of I Moines, Ia., at Leroy.

PAPER WORTH $10 TO FARMER; $50 TO BREEDER."

To the American Breeder:—I have een in the breeding business for ome time and have used three differ- nt kinds of impregnators, but I have ist got my Natural Temperature Ex- ·actor and think it is all right. I ·ant to keep up and don't think a ian gets too old to learn. Seven ears ago I went to Jefferson City and ought a big jack that weighed 1,100 ounds, and learned to use the im- regnator. I was the first man to o any good in this county. I got olts from barren mares that were om 15 to 30 years old. One mare as known to be 30 years old and I red her one time and settled her ith the impregnator and her mule ook the prize in September. I have vo black mammoth jacks and one of iem was four years old last October id the other was five the same onth. I make six services a week ith the jacks and bred what mares ·e present. I use one at ten A. M. id the other at three P. M. I have id five colts out of seven mares ·ed from one service and have bred low as two mares and they both id colts. I have done this time and gain. I have a young Percheron; e is black with star in forehead. He ill be three the fifth of May. He as bred to four mares last year and owed three living colts. I don't e him but three times a week. Is at all right? The horse weighs 600 pounds.

If I couldn't use anything but the atural service I would quit the eeding business.

I think your paper is worth $10 a ar to any farmer and $50 to a man ho keeps breeding stock. I get ore information from the American eeder than from all the rest of the pers put together. Please send me sters that you tell about. I will it them up in good shape. I live Ava, the county seat of Douglas unty—a nice little town in the ark country—where land is cheap d there is lots of fruit and water.

R. A. WADE,
Douglas County, Mo.

M CONVERTING THEM EVERY DAY."

To the American Breeder:—Please nd me three or four of your posters. hink I will be able to get a few sub- ribers this summer, and I am sure e posters will help me do so. I bred ght mares from one service today d could breed six or eight more. I ed the Natural Semen Extractor. I e it the best. I am the first to try psule breeding in this part of the untry, so have several knockers, but am converting them every day. I t one answer to my ad the same day got the paper. I want to continue ad for a couple more months. Will be the same price?—Wm. P. Gan- n, Jasper County, Iowa.

LONG GESTATION PERIOD.

To the American Breeder:—I have unusual case, to me or any one re, and would like to know if it is frequent thing. A man by the name Dan Bailey (colored) of Malvern, k., bred a mare to my jack on the h day of April, 1913, and on the 24th y of April, 1914, she delivered a le mare mule colt. I am sure of th dates, which makes the mare rry the colt 12 months and 17 days. th mare and colt are doing well.— C. Belote, Hot Springs County, Ark.

Long gestation periods have several nes been reported by our readers, d this spring doubtless will bring ports of others.—Editor.

Questions and Answers

(Continued from page 13.)

occur and inasmuch as they occur only occasionally the deformity should by rights not be charged to the sire, or for that matter to the dam. Perhaps it is not best, however, to continue mating these two particular animals for the reason that such deformity might recur.

1102—HABITUAL ABORTION—I examined a mare that I have been breeding for the last two years; have never been able to get her in foal. The vagina was clean and in good condition; cervix normal; litmus paper red and blue did not turn color; left ovary normal; right ovary much larger but free from any other defects as far as I can see. Temperature 99. Please give advice. Is there any chance of getting this mare in foal? I extracted semen from the uterus and it tested all right; it was very active. She will run for two or three months without coming in heat.—North Dakota Subscriber.

REPLY.—The larger ovary may be your difficulty, as it would be possible for enough inflammation in one ovary to destroy satisfactory results. We believe, however, that this mare has been fertilizing and carrying the embryo a short time and expelling it. The uterus may be very small or it may have formed a heavy scar tissue and is causing this disturbance. We would suggest that you give this mare the iodine treatment and breed her this fall. This treatment may not be necessary but we would advise changing the breeding date to fall. By this plan the mare may be induced to carry the foal longer at any rate. We congratulate you on making these examinations. It is a pleasure to have our readers go into details in this manner.

1103—BLOODY URINE—I have not seen anything in your paper in regard to bloody urine of foals. Will you please give a treatment if there is any cure for it? There has been quite a few colts foaled with it in this neighborhood, and they all died in a few days.—Missouri Subscriber.

REPLY.—Bloody urine in foals is one form of navel disease. That is, at (or very shortly after) birth the foal becomes infected through the lacerated navel. This infection extends up the canal leading to the bladder, involves that organ and gives rise to bloody urine. The best way to handle these cases is to use every precaution to prevent the disease, which is done by promptly applying disinfectants to the cord after birth, and continuing such disinfection two or three times a day until the cord dries up.

1104—RANK SERVING STALLION—I have a stallion that when he serves a mare, as a rule, will not discharge until he has made two or three covers. I do not know whether this is caused by the horse masturbating or whether he is out of condition. He is five years old and has never had service enough to hurt him. Kindly let me know if you have a conditioner that will put this horse right.—Illinois Subscriber.

REPLY.—Evidently you are not a very good reader or you would have read the article in the last issue entitled, "A Rank Server." We will ask you to hunt up that issue and read it carefully. There are many individuals who do not seem to have time to read these questions; they do not know just when they are liable to want some of this information very badly. Some of the best scientific men in the country have come here asking for just this information.

1105—ROARER—Would like to know what to do for a large gelding that breathes very loud while working or driving; can be heard above the noise of a wagon. Noise is made with inspiration and not expiration; does not pant like a horse when hot. When working and breathing loud if I let him stand three minutes he will be breathing normal. Was wintered on green wheat and two weeks before I got him was put on alfalfa hay. Have given him two treatments of Mineral Heave Remedy, also fed him some condition powders. Was this a good idea? Does it hurt him to work, as he works free? Has good appetite but not hoggish. Can his loud breathing be hereditary? His sire was a little off in the wind. Before getting him he was so wild couldn't examine him. His owner recommended him as a workable horse worth $200. Would like your idea of such a man.—Kansas Subscriber.

REPLY.—Your horse evidently is a roarer, that is those structures in the upper part of the windpipe that manipulate the vocal cord are paralyzed, which condition will give rise to the character of symptoms described. Nothing can be done for such an animal except operate on the parts which necessarily must be done by a competent surgeon capable of doing such an operation skillfully and successfully. When properly done many of these cases may be permanently cured. We waive judgment on a man that would recommend such a horse for work at a value of $200.

1106—A LACERATED MARE—I have a "gill flirted" mare that I was thinking about breeding with an impregnator or a capsule. Does the mare have to be in heat or can you do this between heat periods? My mare is not in proper condition to breed at present. At times when she is in heat the discharge is white and sometimes it is of yellowish cast and on her tail and legs seems to form a sticky stuff that sticks and will not curry off. Please tell me what to do for this mare, and how, as I have never had any experience of this kind.—Kansas Subscriber.

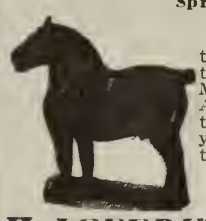
REPLY.—Give this mare the iodine treatment and breed her this fall with a capsule. There is not much danger in breeding such mares except at foaling time. If the colt's limbs should get entangled it might cause further laceration.

1107—TUMOR—I have a Percheron stallion which I purchased three years ago and at that time on the underside of his tail, and about four inches from the root of his tail, there was what appeared to be a wart of some description about the size of a small bird's egg, and today this same wart is as large as a hen's egg and about the

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Spring Mare Importation Arrives April 15.



Largest collection of Belgian draft horses on earth. Also 20 choice Percheron stallions. The fall importation of 100 head, the second importation for 1913 swells the number on hand to 175 stallions, mares and colts. Many prize winners; many descendants of prize winners. All choice animals. We are farmers and stock breeders; twenty-eight years in the Belgian horse business. Each year adds to our strength, and now we can defy competition in quality, quantity and prices.

Four farms, all adjoining; 7 large barns.
Write for free illustrated catalogue.

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The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to D. Augstin, Carlock, Ill., R. F. D. No. 2.

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.



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GEORGE EGGERT, Newton, Iowa.

THIRTY PERCHERONS AND BELGIANS



and one Shire. They range in age from 1 to 7 years; all sound and heavy boned; weighing from 1,800 to 2,200 pounds. There are 17 stallions and 13 mares. I will also sell my herd stallion, Jupiter 65723, coming 5 years old; weight, 2,200.

These stallions are all sold under a guarantee to be 60 per cent foal getters. I have four year olds that weigh 2,200; 2 coming 3 that weigh 1,800. Can sell a good ton stallion for $750; sound and right in every way; some a little higher, and some lower. I will sell at a bargain to early buyers. I have both imported and home bred. **PETER J. EGGERS, DENISON, IOWA.**

Stallions and mares of all ages for sale.

SADDLE STALLION, PERCHERONS AND 10 JACKS.

For sale. Registered saddle stallion by the Great Chester No. 10; sound and a good breeder. Two, two-year-old registered Percheron stallions and ten jacks from yearlings to five years old; from 14½ to 16¼ hands high for sale at reasonable prices. Write your wants or come and see me.

W. L. Graham,
Mackville, Washington County, Ky.

IMPORTED AND HOME BRED STALLIONS AND MARES. PERCHERONS, BELGIANS, SHIRES.

The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perche this year. See what we have before buying elsewhere. **Address Hart Bros., Osceola, Iowa.**

MUST SELL

Percheron stallions two and three year olds; all blacks. The great big kind, will mature into horses weighing 2400 pounds. Come and see them, **WOODLAWN FARM, STERLING, ILL.** no reasonable offer refused.

PERCHERONS, BELGIANS AND GERMAN COACH MARES AND STALLIONS

of all ages for sale. I have recently taken over the entire stock of horses formerly owned by the firm of Ives & Bellman and can furnish patrons with first-class breeding stock of the foregoing breeds. Have a fine lot of 2 year old and older stallions to select from. Address,

WILL BELLMAN, R. 1., Delavan, Wis.

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Stallions and mares of all ages for sale.

Also Shorthorn Cattle

ALSO SHORTHORN CATTLE.
Route 2, Plainfield, Ill.

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Route 2, Plainfield, Ill.

PERCHERON STALLIONS, MARES AND FILLIES.

Imported and home bred, for sale at reasonable prices.

W. C. BAUGHMAN, Pulaski, Iowa.

TWO PERCHERON FILLIES AND ONE STALLION COLT

For sale. All blacks; the fillies imported and the colt sired by my imported stallion, Giacis 55260 (71473). The fillies are two-year-olds; actual weights, 1,600 and 1,610 pounds; and will make magnificent high class mares. The colt is a show stallion prospect; a yearling filly out of the same mare, and not so good as a colt, won first at the American Royal. I want you to come and see these, and the rest of my herd. **F. P. Burnap, 107 West Tenth St., Kansas City, Mo.**

TWO IMPORTED REGISTERED MARES.

For sale. Scaling over two tons. One black; 7 years; an International prize winner; other gray; 13 years; a Springfield championship winner. Both sound, clean, unblemished; good breeders and workers of oustanding class as their show records evidence, and again in foal to Jupiter 11. $1,200 for pair.

W. T. WILKINSON,
Eureka, St. Louis County, Mo.

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(Percherons, Belgians, Shires)
Imported and Bred
Stallions Always on Hand.
Some good values in young stock now.
B. S. HARPER, La Rose, Ill.
30 Years in the Business.

65 GRADE PERCHERON MARES 65

one to fifteen years old. Will sell reasonably as I am short of pasture Several of the mares are in foal.

Wm P. GANNON, VALERIA, IOWA.

150 STALLIONS

Imported and home-bred stallions. I guarantee to sell you stallions for less money than any firm in America. Come to a Live Horse Market and see all draft breeds. Reference, any Bank in Creston. **A. Latimer Wilson, Creston, Iowa.**

$800 BUYS

A Percheron stallion and a mare in foal with colt by side. Sound. Registered in Percheron Society of America.
OLIVER GEARY, Keister, Pa.

same shape except a little longer. Where it connects to the tail it is about the size of a man's little finger. I spoke to a veterinarian about this a couple of years ago and he said the best thing was to let it alone, that if he took it off the stallion would have to be thrown and that might hurt him, and also that the horse might bleed too much. So we let it go but it is getting so large. I have taken large warts from mules by just putting a small rubber around the wart next to the body and I was wondering if I could remove this one the same way. What do you think?—Kansas Subscriber.

REPLY.—It is quite likely that the growth is the nature of a tumor of the melanotic class. This is quite likely true if the stallion is a gray one and is advancing in years. While, as a rule, it is not advisable to disturb these tumors with an operation, yet located as it is we believe it can be removed safely. It is not necessary to cast the animal as the injection of a solution of cocaine in and about the mass will be sufficient to do away with nearly all the pain. A qualified surgeon should be able to handle this case successfully for you.

1108—WILD MARES TO A JACK—I have 20 mares to breed and have two jacks. Do you think it a good idea to put up the mares every day while they are in season or put them up and wait 21 days? I have been getting very few colts. Mares have aborted a good deal. I have mostly wild mares. I am going to breed by your advice.—Texas Subscriber.

REPLY.—Try your mares on the 21st day, make only one service during each heat period. All mares which have aborted should not be bred for several weeks afterwards. We would advise having them cleaned up but this is difficult with wild mares. Inasmuch as they have their freedom they will ordinarily get in condition reasonably soon. When you suspect a mare has recently aborted, or is liable to abort, put her out of the herd immediately. Keep your best jack and dispose of the other one unless you have other work for him to do. A good plan for breeding these wild mares is to lead your stallion out where he can see them, then notice which ones are in heat. The mare you wish to breed should be turned into a long lane so you can lead your jack up within a reasonable distance and hold him until he is ready, then unsnap your bridle rein and let him go. A young jack usually learns to make such a service reasonably soon. Old jacks may cause you some trouble. Always be sure that the mare is in good heat so that she will not fight. This plan has given good results. The difficulty with making a forced natural service on a wild mare is that the cervix is usually closed during such service and the service will not be a complete service. Services are always better where the mare is quiet and not excited. If it is necessary to make a forced service the capsule system will be much better because the fluid will be put in the uterus where it belongs.

1109—DOURINE—Please send me information how to detect mares affected with horse syphilis.—Oklahoma Subscriber.

REPLY.—We refer you to the discussion of the subject "Dourine," in the March 5 issue of the American Breeder.

1110—SHY BREEDING MARES—I have two young mares that are the big, open kind; have very pale cervix. Are they apt to be good breeders? Neither has ever been bred. What is the matter with them and what shall I do?—Oklahoma Subscriber.

REPLY.—Use the saline solution once a week for about four weeks, during which time build up the constitution of your mares with plenty of feed or green grass, then breed them.

1111—EFFECT OF TEASING—I have a stallion that when he teases a mare a while he throws off a whitish fluid; it is as thin as water. He doesn't do it as much as he did the first of the season. Will that hurt his breeding?—Kansas Subscriber.

REPLY.—The condition you describe often results from teasing and we believe for the good of your animal you should discontinue using him for that purpose.

1112—VIGOR TABLETS—What are horse tablets worth? I have a jack that doesn't work on mares; he seems to be afraid and don't tease. I think they have whipped him. He seems to shy off if you raise your hand. Do you guarantee them to make them work? What are they worth per box? —Colorado Subscriber.

REPLY.—Another sucker has been found. Some one has misinformed you as to our knowledge and integrity. We are not in the "vigor tablet" business. You might feed all the Spanish Fly (the usual basis of "vigor tablets") you care to to a jack; if he has been spoiled or whipped you must first regulate his head. One might irritate the penis until it would bleed and yet not get a service. There are three things necessary in handling jacks. The first one is to never allow a jack to see, smell or hear any jack stock until it is at least four years of age. The next important thing is to be kind to him. If he is properly broken he should be easy to handle by an experienced jack man. There is an occasional individual who will never learn to handle jacks. We have known prompt servers to fail to show an inclination for a service when in the hands of certain men but which afterwards made prompt servers. The rough individual who has too much strength in his vocal cords, and is minus the necessary patience and kindness, should not engage in the jack business. The individual who does not know enough to take a young jack away from all of his relations and raise them as they should be raised, should change his occupation. There are some jacks on which some kind of a stimulant might get them to make a service, but "vigor tablets" as they are commonly called very frequently set up an irritation to the extent that the animal does not prove to be very sure afterwards. If we would recommend "vigor tablets" a tremendous trade could be built up in a very short time but they are apt to do harm and we do not recommend them.



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Is Linked Inseparably With
THE FAME OF ASTRAL KING
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The Fine Horse and Jack Auctioneer of the West

I sell more horses and jacks than all others. Terms always right: work always up to the highest standard.



Arizona Range Mares For Sale

From one to two carloads. Mares weighing 850 to 1100 pounds, with good shape; crossed with Steeldust. Just the mares to raise saddle stock and drivers. Correspondence solicited. WM. RUSSELL, SPRINGERVILLE, ARIZ.

French Coach Stallion for Sale or Exchange

For automobile, motorcycle or good registered bull, my imported German Coach stallion. He was foaled in 1899; is 16 hands high; weight 1600 pounds. Is one of the best Coach horses in this part of the state. His colts are here to prove what I say. He is extra sure. If you want a good one write me at once.

I also have a good jack. Am going out of the business.

J. W. ETHRIDGE, Mt. Vernon, Ill. Route 4

W. B. CARPENTER
14th & Grand Ave., Kansas City, M
Specialist in Auction Sales of LIVE STOCK AND LAND.

REGISTERED MORGANS.

My Morgans are large; 15 to hands and 1050 to 1300 pounds; ha clean, heavy bone and possess all the style and endurance for which t breed is noted.

Having bought Headlight Morgan head a selected stud of The Admir mares, The Admiral is now for sa He is 15¾ hands high; weight 12 pounds, and is the greatest all-rou horse I know. I have 200 of his g on the place; part of them for sale.

RICHARD SELLMAN, Rochelle, Texa

Black Hawk Morgans

For Sale. Ten registered black sta lions; mature 15½ hands; 1,200 pound Mares and fillies from yearlings mature ones. Describe what you wa in first letter.

E. F. BROWN, DERBY, IOW
R. F. D. No. 2.

Stallion For Service

Council Chimes 2:07½; pure bred license No. 1769.

A demonstrated speed sire; sire Minnie Chimes 2:04½, and many othe in standard time. Liberal terms application. Write for pedigree a information.

I have a good French draft stalli and a big grey jack for sale.

DR. D. H. BIBENS, Larned, Kans.

EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Poni for sale. **W. H. Fulcomer, Bellevill Republic County, Kansas, Memb American Shetland Pony Club.**

1113—BRITTLE HOOFS—What is good for a stallion's hoofs that are soft and crumbly around the frog? It is hard to keep shoes on his feet. Is pine tar good?—Kansas Subscriber.

REPLY.—The feet should first be softened up by either standing in mud or using ground flax seed poultices, for a few days. Follow by anointing them with a thin coat of vaseline three parts and pine tar one part, well mixed together. About every three weeks give him a light blister around the coronet with powdered cantharides one part and vaseline seven parts, well mixed together. Apply with the finger, rubbing it well. Tie the horse so he cannot contact the parts blistered with his nose for 24 hours.

1114—STALLION WITHDRAWS—I just purchased the Belgian stallion, Malborough De Noirat 3006. He is a heavy horse weighing 1,900 pounds at present and a grand individual, being of a low down draft type. There is one thing I would like to ask you about. When this horse serves a mare, and before he gets entirely through and withdraws, the charge follows out. Is there any way to prevent this? He seems awfully anxious and is always ready to serve mares. He breeds two mares a day. Will more mares a day stop him taking out the charge when he withdraws?—Wisconsin Subscriber.

REPLY.—A less number of services would be more likely to get better services with such horses. If you will pay particular attention to the first service on Monday morning after he has had a rest, this may be of some benefit to you. Encourage your horse to stay on as long as possible. If your bridle is severe, get an easier one. Always sprinkle hay under your horse before you make the servi in order to get him to urinate, if po sible. Do not tease with this hor any more than you just have to. you will erect a hitch rack whe mares can be teased you can dispen with much teasing by removing a

uiet and alone. Bring the horse out here he can make a little noise and here they can see and hear him. ive them a little time to get familiar ith the situation. Tie their heads o they cannot eat anything. This is ie best way to diagnose natural heat 1 mares. It may be necessary to ease a few.

1115—MARE FAILS TO BREED—I ave a nine-year-old grade Percheron iare that has never been in foal. She as bred with capsules last year without results. She shows but little signs f being in heat at any time. Have ad her examined by a veterinarian, lso a graduate from your school. hey both pronounce her healthy and 1 good condition. Would be pleased o have you advise what to do for her. Would like to breed about June 1st. his mare has been bred every season ince a four-year-old but will not take horse but once during the season.—ansas Subscriber.

REPLY.—Not having an opportuity to examine this mare, we are andicapped. One thing is certain hich we assume on account of her howing very little evidence of heat, nd that is that the genital organs re in a very dormant state and very kely she is not discharging ova capble of undergoing fertilization. A ery careful examination of the varies should be made in this case nd not only those organs but the orns and body of the uterus should e carefully and gently massaged vice a week. If you have a competent man do this for you we feel that ou should see a change in this anial's behavior and possibly you can estore the tone of the organs until ie fertilizes.

1116—RETRYING MARES—Should a iare be tried nine days after she is erved? And if in heat should she be red?—Oregon Subscriber.

REPLY.—Mares having colts by ieir side should be bred from the eventh to the ninth day. They should e retried on the 21st day and not ooner than that. Some breeders use ie 18th day but if a mare is in on ie 18th day she will very likely be on the 21st day. It is better to reed on the latter end of the heat eriod. No mare should ever be tried ack on the ninth day. This is a aste of time. After a mare has been ied on the 21st day she should be ied once a week for three weeks after iat date. This is to provide for iose irregular mares. It also prides for the next 21 days. If a mare asses these dates she is in all probbility settled but may lose the embryo at a later date. All of these rials should be made lightly; do not llow the stallion to be rough with er as these are delicate times for regnancy.

1117—INFECTION—One of my neighors bred a mare to my Percheron horse ast year but a month ago she foaled colt perfect in every respect but it ommenced to scour at birth; a milky uid and slimy and kept it up until it ied. Before it died it seemed lame in s joints. The mare was in fine condition; she ran on wheat pasture; had ay and grain and was stabled nights. What do you think caused the trouble? -Kansas Subscriber.

REPLY.—It is quite likely that the olt in question was infected, perhaps through the navel, as it showed ome of the symptoms that attend avel ill. These cases are best reated by prevention which consists f a proper disinfection of the umilical stump.

1118—NATURAL TEMPERATURE EMEN EXTRACTOR—Do you consider ie Natural Temperature Impregnator uch better than those we got a couple f years ago?—Minnesota Subscriber.

REPLY.—Those who have had good esults from the Carlson Semen Extractor should not make any change. is difficult to make a satisfactory hange after one has learned how to se a particular kind, no matter how ood the other one may be. The new nstrument will give better satisfacon for new beginners. It has given xcellent results.

1119—STIFF MARE—I have a mare that is due to foal in about a week. She is 11 years old. She is getting so stiff in her legs that she just can walk and she won't lie down; if she did I fear she would not be able to get up again. She is well otherwise and in good flesh. Please inform me what is the cause and what to do for it Will she get over it when she has the colt? Missouri Subscriber.

REPLY.—These cases are frequent and sometimes give considerable annoyance for several days previous to foaling, but after delivery generally make a gradual recovery. Such cases, however, are liable to have a similar experience subsequently if continued as breeders. About all that can be done is to see that they have opportunity for exercise on pleasant days in a pasture and are housed during inclement weather. While some cases become very stiff it is rare that one becomes lost as a result of this trouble.

1120—SERVING WHILE PREGNANT—I bred a mare on April 15, 1913, and on May 2 and May 21 she refused the horse, then on June 26 she was in heat again. I bred her and used a capsule and this spring she foaled a colt on April 19. She must have gotten in foal from the May 2nd service. How does it come that by using a capsule on June 26 that I did not have bad results. This year I bred on the 9th day, April 27; tried her on the 21st day after she showed signs of being in heat; on May 18 and May 25 she was the same. I examined her with the speculum. Her cervix was drawn and puckered. Have not bred her yet. Did I do right or not?—Subscriber.

REPLY.—Knowing this mare as you do we would advise not to open the cervix even though she is in heat. Every breeder should remember the condition of the cervix when a mare is served or bred. If it is opened at time of breeding and she should come back at a later heat period showing signs of heat, and the cervix is closed up tight, and the mare not being nervous we would not advise opening the mare. It is not a good plan to break the mucous plug by feeling of the cervix very much. A speculum is better. In fact, every breeder should have a speculum. Since the domestication of horses much of the breeding is artificial. For instance, stallions are taught to make a service every time a mare is presented in heat, even though it be a dozen times a day, and when a stallion runs on the range in his natural condition, he averages about one service. This same tendency has much to do with mares.

1121—BOTS—Mares in this vicinity have been bothered a great deal with bots this spring. What remedy can you recommend? I have one mare heavy in foal that has them but she isn't due to foal until the first week in June and I fear they may do much damage until that time and yet I am advised by apparently good authority that doctoring during this period may result in her losing her colt. I have several high priced mares that are troubled badly.—Montana. Subscriber.

REPLY.—You are causing yourself needless worry about the harm these parasites may cause your animals. A careful post mortem examination of the stomach of almost any horse that dies in the country from almost any cause will reveal the presence of bots. The harm they are capable of doing is greatly overestimated by laymen; in fact, they do very little harm and very rarely cause sickness or death. They are very difficult to dislodge by means of medicated agents, so the best thing a stock owner can do is simply forget that there is such a thing as bots.

1122—TREATING A MARE—A five-year-old mare was bred to my horse every 18 days last year from April until July and never settled. She is a large mare and in fine shape. She has never had a colt. I opened her three or four times, and she seemed to be in a healthy condition. She came back this spring and I put her on the soda treatment. While washing her out I noticed some little blue lumps passing from her; they looked like blue clay and about the size of a stock pea and smaller. This mare came back in 16 days in good heat again. It was after sundown so I did not have time to treat her any more. If you can diagnose this case from my description, please do so and give me a treatment.—Texas Subscriber.

REPLY.—If your mare comes back in heat on the 21st day give her the iodine treatment and breed her this fall.

1123—SCRATCHES—My neighbor has a nine-year-old mare that is itching on her legs up to the knee and hock joints. She is very hairy and has wrinkles around the lower parts of her legs; some the size of a lead pencil and some as large as a finger. Is this scratches

What Breeders Say About Jacksorine

The Greatest Remedy Yet Discovered For All Sores on Jacks, Horses or Mules. Price $3.50 Per Can.

"I have used two cans of your Jacksorine and I regard it as being as good for jack sores as anything I have ever used. Have been in the jack business for over 30 years.—J. W. McCanse, Mt. Vernon, Mo."

"I have a fine jack which got one of his front legs in the pit, and he got to gnawing it and made a very bad sore which refused to heal for all remedies until I got a box of Jacksorine and cured it with half a box.—J. A. Johnson, Erick, Okla."

"I have tried your Jacksorine and find it the only medicine for jack sores. I can recommend it to any one who has jacks with sores on them.—Sam Molen, Frazer, Ky."

"I have used your Jacksorine, and after having a jack with five different sores on him, and trying every remedy that I could hear of, and giving him up as incurable, I got a box of your Jacksorine and cured him inside of 60 days. I consider it has no equal.—A. M. Perkins, Washington, Ind."

"I had a jack with a bad sore. I tried two veterinarians on him but they failed to do him any good. I saw Jacksorine advertised and sent and got a box and it cured him sound and well. I think Jacksorine is everything that it claims to be.—H. D. Power, Alto, Texas."

"Make my claim for Jacksorine as strong as you wish. I used it and found it O. K.—H. G. Belt, New Salem, Ohio."

"I have used several cans of Jacksorine and have found it to be the best thing I ever used for jack sores.—Wiley Clouston, Ness City, Kans."

"We have never used Jacksorine on jack stock, but have used it on a very bad case of grease heel on a stallion, which use gave very satisfactory results. We can recommend it as being a No. 1 ointment.—Jas. and W. R. Clelland, New Hampton, Mo."

"I have used Jacksorine for two seasons with good results. Will want another can soon.—O. A. Seaton, Jewell, Kans."

"I am using your Jacksorine with good success. Would recommend it to all as a reliable remedy for jack sores.—Cliff Hutton, Hennessey, Okla."

"I got a can of your Jacksorine which I used on a mare that had an old sore on her hip, caused from mad itch. It sure does the work and does it well.—J. C. Starkey, Marquard, Mo."

"I have used your Jacksorine to my entire satisfaction. I find it to be absolutely the best remedy for jack sores I ever used. Can heartily recommend it to anybody.—O. W. Layson, Hatton, Mo."

Under new management and partly as a result of greatly increased sales, the price of Jacksorine has been reduced from $5 to $3.50. Its **old high** standard of quality will be absolutely maintained.

Jacksorine undoubtedly is the best remedy for jack sores ever put out. It is put up in large self sealing containers from a scientific prescription and was long used with absolute success by the president of this company on his own stock. **Remember, the price is $3.50 per can, postpaid.** Remit by P. O. order or bank draft to

O. P. WILSON & CO., Lock Box 489, Kansas City, Mo.

Fine Kentucky Jacks For Sale



Will be in Hiawatha, Kas., about March 6th with a car load of fine Kentucky jacks for sale privately. Anyone wanting a jack call and see our stock.

Also have 40 head of jacks and jennets at our home, **Poplar Plains Ky.**, for sale privately. Ages from one to four years. **SAUNDERS & MAGGARD.**

BIG MAMMOTH JACKS AND JENNETS.

For sale. I have some good jennets which are kin to my herd jack, for sale at a bargain. Also young jacks, one to coming four years old, and the large, big boned Poland China hogs, breed sows and boars old enough for service, and pigs. Seven miles North of Monett on Frisco R. R., and six miles Southwest of Hoberg on Mo. Pac. R. R. Write for prices to

Henry Obermann & Son, Freistatt, Mo.

MAMMOTH JACKS

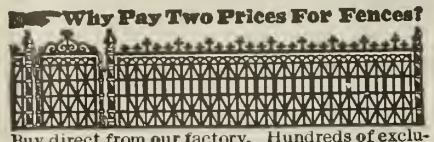
For sale—Large, heavy boned, 15 to 16 hands high. Prices from $250 up. Located eight miles west of Cedar Rapids, Ia., near Fairfax.

JOHN HENRY, Fairfax, Ia.



Cheap as Wood We manufacture **Lawn** and **Farm Fence. Sell direct,** shipping to users only at **manufacturers' prices.**
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Ward Fence Mfg. Co., 618 Penn St., Decatur, Ind.

or grease heel? What can be done for her?—North Dakota Subscriber.

REPLY—We assume that you have a mare predisposed to scratches and it will require care to prevent this annoying disease developing. In the first place do not wash this animal's legs any more than just necessary to keep them clean, and when soap is used the soap suds should be carefully rinsed out. Use a clean soft brush and keep the curry comb off her legs. Do not permit her to carry too much flesh during the hot season, and feed no corn. Apply to the affected limbs twice a day or oftener if needed, a mixture made up by adding two ounces of sugar of lead to one quart of rain water. Keep in a clean stall free from decaying manure and urine.

1124—MAKING THE WRONG ENTRY—What is the law in case of accidents on standing stallions if a man has not got it on his bill? If a man breeds a mare and the horse makes the wrong entrance would he be liable?—Nebraska Subscriber.

REPLY.—If the stallion owner has been careless and neglected to perform his duty it will be necessary for him to pay damages, but if he was doing the best he could and such an accident should occur, it should be described as an accident. There is very little use in anyone allowing the wrong entry to be made. The first three fingers of the left hand should be inserted into the vagina upside down, then the penis will strike the hand and the entrance will be made easily. Of course the right hand should be in use to properly make the entrance. In fact, this is the best way to make the entrance for either a stallion or a jack.

1125—UNTHRIFTY FILLY—I have a yearling filly colt that got very poor last winter and had the distemper. Her legs are very weak in the joints; was all right until last winter. It had the distemper last winter and has been affected since with weakness in hind legs, and especially in the ankle joints. What is the cause and what should be done for it?—Iowa Subscriber.

REPLY.—We are not sure of the nature of the disease you term distemper for the reason there are several diseases that are known by stockmen by that name. One thing is certain, you have a very unthrifty and therefore unprofitable colt to deal with, and we think you should have a good competent veterinarian look the case over and determine just why it is in its present condition. It may be in the course of the disease abscesses have formed in some of the internal organs, giving rise to unthrift. Again it may be that the animal is infected with worms. Possibly you have not given it the proper kind and quantity of food to induce it to take on a more thrifty nature. We predict that this animal needs careful attention to nutritious diet; perhaps several injections of bacterins and a long course of some good tonic agent in the feed.

1126—TWO-YEAR-OLD SERVICE—I would like to ask how many services a two-year-old stallion should make per week without doing an injury? I have a two-year-old Percheron stallion which I started in the season at one service per week; I have now increased it to two services per week, having made elght services to date. Is that too many, or will I be able to increase it any more as the season advances? —Montana Subscriber.

REPLY.—One service a week for ten weeks, no two services closer than one week. Do not allow him to do much teasing.

GOT A WHITE FACED MULE.

Scott Miller, owner of Oakland Stock Farm, has written us concerning his success getting white faced mules from his white faced jack, Lord Roger, now three years old. Last year he bred five mares to this jack and reports:

"The gray that was first bred to the jack produced a colt the other day. It is an extra good mule with a white face and two white hind feet, otherwise black. It is, of course, a novelty. Breeders for 20 miles have come, after hearing of this colt, to look at him. The breeding followed the jack exactly; the infuse and cross of the Starlight blood in the jack, on the first colt at least, produced exactly what we wanted, a white faced mule with a black body. The two white hind feet is that much more than we bargained for, but we had that in the jack. He also has two white hind feet. We are now anxiously waiting for the foaling of the other mares.

But, anyway, the first colt is a white faced mule. It was thought on the farm, knowing that mules that had been bred with white noses for a hundred years, that it was strange if they could not be bred with white faces and black bodies. Anticipating that a team of 15½ hand mules, black with white faces, would at least, be a change from what we have had for a hundred years; possibly as good individuals, with the addition of a right white face, I believed mule buyers who want this kind of a team will come to Livingston County in three or four years to buy a span of white faced mules.—Oakland Stock Farm, Livingston County, Mo.

H. T. BROWN OF KENTUCKY DEAD

A recent letter from the firm of Cook & Brown, Lexington, Ky., reports the death of Mr. H. T. Brown, of the firm. Mr. Brown's death occurred while Mr. Cook was on his way to the National Live Stock Exposition at Havana, Cuba., with an exhibit of jacks, saddlers and draft horses.

AS A VETERINARIAN SEES IT.

To the American Breeder:—Your card received and I assure you I am going to renew my subscription. I have been engaged as an exclusive veterinarian for a good many years, and from experience and hard study am prepared to say that a knowledge of the principles of stock breeding cannot be acquired without diligent study and close application. It is only the property of the industrious and devoted student. In regard to the American Breeder, it has no parallel in matters relative to its purpose. I close by saying yes, here is a dollar for three years more. Accept it in the spirit in which it is given.—Jacob Smith, Darke County, Ohio.

A MISSISSIPPI JACK COLT.

To the American Breeder:—I see the different ages and measurements of jack colts, so I will send you a measure of my ten day old jack colt (from a registered sire and dam) as follows: 41 inches from ears to crupper; 40 inches high; 33-inch girth; 36-inch heart; 11-inch forearm; 5-inch leg, smallest part; 11 inches around hock joint; 22-inch ears from tip to top. What is he for a jack colt ten days old? What do you think he will make if well cared for? How should the jennet be fed for best results to colt. This is my first jack colt.—J. H. Tabor, Choctaw, Miss.



KENTUCKY JACK AND PERCHERON FARMS

Closing Out Sale.

One hundred and twenty-five head of Mammoth jacks, saddl and Percheron horses will be priced so as to close them out a once to wind up the estate of the late H. T. Brown, who was member of this firm. Visit the farms or write or wire us fo information.

COOK & BROWN. **Lexington, Ky**

ADVERTISING BRIEFS

Adam Matz, Carmi, Ill., is advertising a jack for sale or trade for good Morgan or saddle stallion, mares or colts. The ad is in this issue.

F. P. Burnap, 107 West 10th St., Kansas City, Mo., is offering two choice things in Percheron fillies; also a great stud colt prospects. Be sure to see his ad and write him, mentioning the American Breeder.

The S. R. Fell Co., of Cleveland, O., have sent us the following letter, typical of hundreds received from users of Sal-Vet: "Last spring my sows were very wormy and out of 110 pigs we lost 57 and the others were in bad condition and would not put on weight until I fed them Sal-Vet. After that they started to gain. This fall I fed Sal-Vet to the sows and the pigs came out stout and hearty. Out of 153 we saved 123 and they are all doing finely. I would not think of being without Sal-Vet."—H. F. Hodgins, Lawrence, Kansas.

J. E. Ethridge, Mt. Vernon, Ill., wants to trade his German coach stallion for an automobile, motorcycle or registered bull, or he will sell him. He also has a good jack for sale, as he is going out of the business.

Gunn's 2-Horse Guider Road Builder, made by D. B. Gunn of Red Oak, Ia., is the best thing manufactured in this line. For cleaning barn yards, smoothing private roads, correcting drainage, as well as for regular use, it beats anything else, expense and horsepower considered. Read the ad. Prices $20 and $25.

The Eastman Kodak Co., Rochester, N. Y., is so thoroughly the leader in the manufacture of cameras and all kinds of camera supplies, that it stands alone. Kodaks for use and entertainment are probably worth as much in proportion to cost as anything money can buy. The American Breeder gets as much benefit from expenses made for good illustrations as from any other item of cost in our business and most of the photos are made with Eastman machines. We are glad to recommend that our readers secure catalogues from the Eastman Kodak Company, and kindly mention the American Breeder when writing.

The Edwards Mfg. Co., Cincinnati, O., make the steel roofing you want. See adv. and mention the American Breeder when you write.

The Missouri Auction School, 14th and Grand Ave., Kansas City, Mo., leads in successful instruction for this most interesting and profitable profession. Next term starts early in August. Write the above address at once if you are interested, and mention the American Breeder.

H. T. Brown, member of the firm of Cook & Brown, died a few days after Mr. Cook had sailed for Cuba, which left no one at the head of the sales department for two months, consequently they have on hand 125 head of jacks, saddlers and Percherons which must be sold at once to wind up the estate. Parties who are in the market for jacks, saddlers or Percherons, should visit their farms.

R. Ellis, Lawrence, Kas., Route 6, is advertising a dark gray, 14¼ hands high jack for sale at $125. Read the ad.

W. T. Wilkinson. Eureka, Mo., is advertising for sale in this issue two imported registered mares, (both prize winners) for $1,200. They are both in foal.

Wm. Crownover, Hudson, Iowa, breeds and imports Percherons, Belgians and Shires and always has a select lot of stallions and mares always on hands. He has the Iowa and International grand champion. Farceur 7332 (72924) at the head of his stud.

Oliver Geary, Kelster, Pa., is advertising a Percheron stallion and a mare in foal with colt by side at the bargain price of $800.

Wm. Russell, Springville, Ariz., has from one to two car loads of Arizona range mares for sale. Look up the ad.

H. A. Schwatken of Hammond, Kans., is offering seven jacks and 12 jennets for sale, or will trade for land in the rain belt.



JACKS.
20 good black jack and some good jen nets; coming 3 to com ing 8 years old. Larg heavy boned, broken t mares and promp servers. Prices rea sonable. Come an see me. Barns tw miles from town.
Phil Walker, Moline, Elk County, Ka

EXTRA GOOD JACK
For Sale. Coming 4 years old; 15 hands standard; welght around 1,1(pounds; black, with white points, nic ly marked. Sired by Missouri Kin that sold for $2,000. Good enough head anybody's herd of jennets. Com and see a good one; if you don't fir him strictly good I will pay your e penses.
T. E. COLLINS. BELLEVILLE, KA

FAIRVIEW JACK AND JENNET FAR



32 Jacks and 35 Jennet the best that grow, 14 to 16½ hands high Jacks with lots of bo and substance. Ever thing guaranteed as re resented. Prices righ Address
J. C. HUCKSTEP, Eolia, Pike County, M

Jacks For Private Sal
In order to reduce my jack stock will sell at very much reduced pric for the next 60 days. I raised mo all of my jack stock and can sell the cheaper than the man that deals them. My jacks are all black wi white points; in ages from 2 to years old; in sizes up to 15¾ hands.
U. G. SAUNDERS, Flemingsburg, K



300 HEAD of Colora raised Jacks, Jenne Mules and Brood Mare All guaranteed. Pric right. **Lewis Swink Son, Rocky Ford, Ote County, Colorado.**

Dark Gray Jac
For sale or trade. Eight years o heavy bodied; good server on eith mares or jennets. Will trade for go Morgan or saddle stallion, mares colts. Photo and description if y mean business.
ADAM MATZ, CARMI, IL

6 -JACKS--6
17-JENNETS-17
The jacks are three and four yea old, and they and the jennets are good stock. All black with mea noses. I want to close them out t spring, and will make the prices rig
JOHN A. EDWARDS, Englewood, K

14 GOOD BREEDING JACKS.
Also imported Percheron and Belgi stallions; some weigh 2,160 poun Stock for sale on long time paymen 1, 2 and 3 years at 6 per cent.
R. I. LITTLE, Route 2, FAIRFAX, I

Jack For $125
For Sale: Dark jack with lig points; 14¼ hands high; a getter good large mules and a sure breed Price $125.00.
Address
R. ELLIS. Route 6, Lawrence, K

Lou Burk, whose drawings of pu bred horses, cattle and hogs ha been more widely used in advertisi than the work of any other one ma died recently at his home in Bloo ington, Ill. Photographs are n largely taking the place of the brush and crayon work such as Burk used to do.

PERCHERON MONEY IN 1914 SHOWS.

Five important live stock shows this year offer Percheron Futurity prizes on colts foaled in 1913. These are the state fairs of Iowa, Ohio, Wisconsin and Illinois, and the International live stock show at Chicago. The dates of all the leading stock shows and fairs will be published in these columns soon.

In addition to futurity prizes, Percheron Society money will be awarded in some form at each of the fairs of the United States and Canada.

American Royal Live Stock Show, Kansas City, Mo.; Arkansas State Fair, Hot Springs, Ark.; California State Fair, Sacramento, Calif.; Colorado State Fair, Pueblo, Colo.; Colorado—The Western Stock Show, Denver, Colo.; Idaho Inter-Mountain Fair Association, Boise, Idaho; Idaho—The North-West Live Stock Association, Lewiston, Idaho; Illinois—Kankakee Inter-State Fair, Kankakee, Ill.; Illinois State Fair, Springfield, Ill.; Indiana State Fair, Indianapolis, Ind.; Iowa Inter-State Fair, Sioux City, Ia.; Iowa State Fair, Des Moines, Ia.; International Live Stock Exposition, Chicago, Ill.; Kansas State Fair, Hutchinson, Kas.; Kansas State Fair, Topeka, Kas.; Kentucky State Fair, Louisville, Ky.; Louisiana State Fair, Shreveport, La.; Maryland—Inter-State Fair & Horse Show, Hagerstown, Md.; Massachusetts—Brocton Fair & Horse Show, Brocton, Mass.; Michigan State Fair, Detroit, Mich.; Michigan—West Michigan State Fair, Grand Rapids, Mich.; Minnesota State Fair, Hamline, Minn.; Missouri State Fair, Sedalia, Mo.; Missouri Inter-State Fair, St. Joseph, Mo.; Montana State Fair, Helena, Mont.; Montana Inter-State Fair, Bozeman, Mont.; National Feeders' & Breeders' Exposition, Ft. Worth, Tex.; Nebraska State Fair, Lincoln, Neb.; New Jersey State Fair, Trenton, N. J.; New York State Fair, Syracuse, N. Y.; North Caroline State Fair, Raleigh, N. C.; North Dakota State Fair, Fargo, N. Dak.; North Dakota Fair, Grand Forks, N. Dak.; Ohio State Fair, Columbus, Ohio; Oregon State Fair, Salem, Oregon; Oklahoma State Fair Ass'n of Oklahoma, Oklahoma City, Okla; South Dakota State Fair, Huron, S. Dak.; Tennessee State Fair, Nashville, Tenn.; Tennessee—Tri-State Fair, Memphis, Tenn.; Texas State Fair, Dallas, Tex; Utah State Fair, Salt Lake City, Utah; Virginia Inter-State Fair, Lynchburg, Va.; Virginia State Fair, Richmond, Va.; Washington—Spokane Inter-State Fair, Spokane, Wash.; Washington State Fair, N. Yakima, Wash.; West Virginia State Fair, Wheeling, W. Va.; Wisconsin State Fair, Milwaukee, Wis.; Wyoming State Fair, Douglas, Wyo.; Alberta Provincial Exhibition, Calgary, Alberta; Canadian National Exhibition, Toronto, Ont.; Dominion Exhibition, Brandon, Man.; Macleod Agricultural Association, Macleod, Alberta; Southern Alberta's Big Exhibition, Lethbridge, Alta.; The Edmonton Exhibition Association Ltd., Edmonton, Alta; The Manitoba Winter Fair and Fat Stock Show, Brandon, Man.; Winnipeg Industrial Exhibition Association, Winnipeg, Man.

Secretary Wayne Dinsmore, Stock Yards Station, Chicago, will furnish additional information on this subject to any who apply.

PANAMA EXPOSITION LIVE STOCK ITEMS.

The following are some of the recent items of news from the Panama-Pacific Exposition, concerning the live stock department:

The Imperial Ottoman Adj. High Commissioner, Hon. Vahan Cardashian, makes the assurances that Turkey will exhibit a stable of Arabian horses, some extra fine specimens of Cyprus jacks, Angora goats and sheep.

Hon. Mirza Ali Kuli Khan, who officiated at the site selection for Persia, has made assurances that his government will exhibit Fat Tail Persian sheep and Arabian horses.

In the South American exhibit will be a herd of llamas from Bolivia. These useful burden-bearing animals are to Peru and Bolivia what the reindeer is to the Arctic regions. There will probably also be included alpacas and vicunas, fur-bearing animals.

The Harness Race Meetings to be held at the Exposition next year continues to attract much attention. The track is practically complete and will be used this summer and fall to get it in perfect condition. A number of prominent racing stables have signified their intention of wintering at San Francisco track, where stable accommodations will be provided for them.

Advices from Ohio are to the effect that $25,000 has been appropriated for a live stock exhibition at the Panama-Pacific International Exposition.

SAVING WASTE BY FEEDING CALVES.

To the American Breeder:—Feed unsalable on the market, some of it burned as waste by some people, may successfully and economically be used in feeding cattle, according to experiments conducted at the Fort Hays (Kansas) branch agricultural experiment station. The results of the experiments were announced to several hundred farmers and stockmen at the recent Western Cattlemen's meeting, at Hays.

Four lots of calves were wintered on a ration consisting of kafir silage, wheat straw, 1912 corn stover, 1912 foxtail hay, linseed meal, chop grain, alfalfa, bran, corn and shorts. Eighty per cent of the ration consisted of the first four products. The lot of calves which made the smallest gain, cost (for feed and labor) three cents a day per head. The gain in 144 days averaged 41 pounds to the head—a larger gain than that made in ordinary range feeding. A lot which was fed to make heavier gains cost six cents a day per head, and the average animal showed an increase of 113 pounds at the end of the 144 days. The heavy gains were thus shown to be more econmically produced. Some of these heavy cattle are to be used in an experiment in early breeding.

Three lots of beef cattle were also wintered on an economical farm ration, the only addition being of a small amount of concentrate—linseed meal or cotton. Calves were produced more certainly with linseed than with cotton cake, but the difficulties of cotton cake seemed to be partly overcome by feeding on the range instead of in lots. The labor and feed cost for wintering each animal varied from $4.53 to $6.17.

Addresses were made at the meeting by George K. Helder, superintendent of the Fort Hays station; W. M. Jardine, dean of agriculture in the Kansas State Agricultural College; W. A. Cochel, professor of animal husbandry in the same institution; W. A. Boys of Hays, district farm adviser; N. A. Crawford, Kansas Ag. College.

SAVING WASTE BY FEEDING CALVES.

Table covering feeding test on four lots of calves wintered (1913 and 1914) on rations made up of kafir silage, linseed meal, wheat or corn chop with bran or shorts, 1912 corn stover and foxtail hay, wheat straw and limited alfalfa:

	Lot 1.	Lot 2.	Lot 3.	Lot 4.
Number of calves in lot.	30	30	24	24
Number of days fed.	144	144	102	102
Beginning weight (per calf), lbs.	403	409	323	284
Closing weight (per calf), lbs.	517	452	413	407
Average daily gain (per head), lb.	.79	.29	.88	1.2
Feed Consumed:				
Kafir silage, lbs.	33,120	29,430	25,250	12,615
Wheat straw, lbs.	7,305	14,185	5,190	3,510
1912 corn stover, lbs.	8,890	9,985	6,580	18,750
1912 foxtail hay, lbs.	12,755	10,050	7,180	8,750
Linseed meal, lbs.	2,526	923	1,212	2,424
Chop grain, lbs.	1,476	628	1,046	2,232
Alfalfa, lbs.	4,815	2,450	2,525	2,110
Bran, lbs.	450	300	400	768
Corn, lbs.	2,280	1,372	774	1,528
Shorts, lbs.	1,260	378	180	320
Value of feed consumed	$263.21	$144.43	$129.54	$165.98
Average cost per day (per head)	.06	.033	.056	.067
Cost of 100 lb. gain	7.50	11.37	6.35	5.58
Labor cost per lot	27.36	27.36	19.38	19.38
Total cost of wintering (per calf)	9.55	5.72	6.51	7.63
Gained (per head), lbs.	113.76	41.76	89.76	122.4

Feed Values Used in Estimating Costs:

Kafir silage, $4.00 per ton; linseed meal, $1.54 per cwt.; wheat straw, $1.00 per ton; corn stover, $2.00 per ton; foxtail hay, $1.00 per ton; alfalfa, $12.00 per ton; corn, $1.50 per cwt.; bran, $1.05 per cwt.; shorts, $1.15 per cwt.; wheat chops, $1.40 per cwt.

DYNAMITE ON THE FARM.

To the American Breeder:—In many cases dynamite can be used with economy to perform work requiring a large force, suddenly applied. For instance, in splitting hard-wood logs for fence posts, the writer has found that the cost of dynamiting is less than half the value of the labor required to split a log with sledge and wedge.

A very important work which can not be done easily without dynamite is the breaking up of an impervious sub-soil. When irrigated land has poor drainage caused by a hard shale of lime stratum a few feet below the surface small charges of dynamite exploded about a rod apart will give a large return upon the sum invested.

Dynamite is made in different strengths containing 10 per cent, 40 per cent, 60 per cent, etc., nitroglycerine. The stronger grades act more quickly and the force is sooner spent. The best grade to use depends upon the work to be done. For instance when blowing a large stump out of mellow soil, 60 per cent is much better than 80 per cent because the latter will spend its energy before the inertia of the stump has been overcome. In general, the weaker grades are best for lifting and the stronger grades are most efficient in splitting and breaking.—Henry A. Doerner, Colorado Agricultural College.

FILLS THE PLACE IT TRIES TO FILL.

To the American Breeder:—I shall be glad to write a short article for your valuable paper, as soon as I can get time to collect my thoughts. We are very busy now with the stud and other work. Never saw mare owners as optimistic as they are now. I like your paper, it fills completely the place it tries to fill.

You remember that I ordered 20 papers sent to my patrons; I have heard from some of them. One man said, "I learned more about taking care of mares and colts than I have learned all my life." Another said he liked it, and I suppose he did, for he has subscribed.—Wilmer L. McIlroy, Pike County, Mo.

TO RETARD THE RUSTING OF IRON.

To the American Breeder:—Rusting of iron and steel is natural and unpreventable, but it can be retarded in its rapidity of formation. On exposure to the weather iron combines with oxygen of the air and rust is formed.

Water (either as a liquid or vapor) and oxygen must be present. Rusting is not merely the simple union of iron and oxygen but rust is the result of complex actions between iron, water, substances dissolved in the water (as soil, dust, etc.), impurities in the iron, etc. In the changes occurring there are formed small electric currents between particles of the iron and of the other substances and oxide of iron results.

Some substances hasten rusting and others retard it. Those which aid are materials of an acid nature. Some forms of iron do not rust as readily as others. An iron which is worked well in its making and which is comparatively pure is especially resistant to rusting. Substances of an alkaline nature, such as quick lime, soda, caustic soda, potash, often inhibit rusting. A solution of potassium dichromate is especially good.—Raymond Rertwig, Colorado Agricultural College.

CATCHING A FEW.

The United States Department of Agriculture at Washington has just sent out notice of convictions for violating the "Insecticide Act," as follows:

"F. A. Thompson & Co., a corporation of Detroit, Mich., has been fined $50 on each count for three separate violations of the Insecticide Act because of shipments of adulterated and misbranded insecticides into other states. One fine of $50 was imposed on this company for shipping a quantity of 'Thompson's Rose Nicotine,' which was adulterated and misbranded, into California.

"A shipment from Philadelphia, Pa., to Buffalo, N. Y., by Roberta K. Good of 'Caustic Potash Tobacco Fish Oil Soap No. 6,' brought a fine to the shipper of $100 because the article was adulterated and misbranded. The article was recommended for the destruction of insects and parasites of all kinds that infest plants of any kind, was claimed to contain tobacco extract, 50 per cent of fish oil, and a large percentage of bone phosphate and ammonia, whereas it was not effective in destroying some insects that infest some plants, did not contain any tobacco extract, contained less fish oil than claimed, and did not contain a large percentage of bone phosphate and ammonia.

"A decree of condemnation and forfeiture was entered against a consignment of six cases of 'Nikoteen Aphis Punk,' manufactured by the Nicotine Manufacturing Company, St. Louis, Mo., which had been seized under process of libel.

"Other convictions for violations of the Insecticide Act, according to recent Notices of Judgment issued by the U. S. Department of Agriculture, are as follows:

"Peaslee-Gaulbert Co., Louisville, Ky., 'Lime Sulphur Solution,' misbranding.

"West Disinfecting Co., New York, N. Y., 'Chloro-Naptholeum Disinfectant,' misbranding.

"Robert W. Prescott, Kansas City, Mo., 'Moore's Hog Remedy,' misbranding.

"Robert W. Prescott, Kansas City, Mo., 'Car-Sul,' misbranding.

"L. W. Young, Massillon, Ohio, trading as American Fly Paper Co., 'Magnet Brand Poison Fly Paper,' misbranding.

"Perfection Chemical Co., New York, N. Y., 'Perfection Carman's Antipest,' misbranding.

"J. L. Hazen and William Feldman, trading as the Pioneer Quick Fly Exterminator Co., Denver, Colo., 'The Pioneer Quick Fly Exterminator,' misbranding.

"Henry Heininger and Charles L. Baker, trading as the Henry Heininger Co., New York, N. Y., 'Magic Fly Killer Plant,' adulteration and misbranding.

"Sharp & Dohme, Baltimore, Md., 'Sanax Disinfecting Fluid,' misbranding."

ONE ENTRY IN THE PERCHERON (SIDE) SHOW.

To the American Breeder:—I see you have quite a stallion show. Here is my Percheron: Height 69, heart 90, bone 11. Am having the best of results (as far as I can tell) with capsule breeding; thanks to the Scientific Breeding School. Some of my patrons objected to using capsules on their mares, but I got enough good "dope" at the school to convince them all. I have one of the Natural Temperature Extractors and I think it is all right.—R. C. Thompson, Fairfield County, Ohio.

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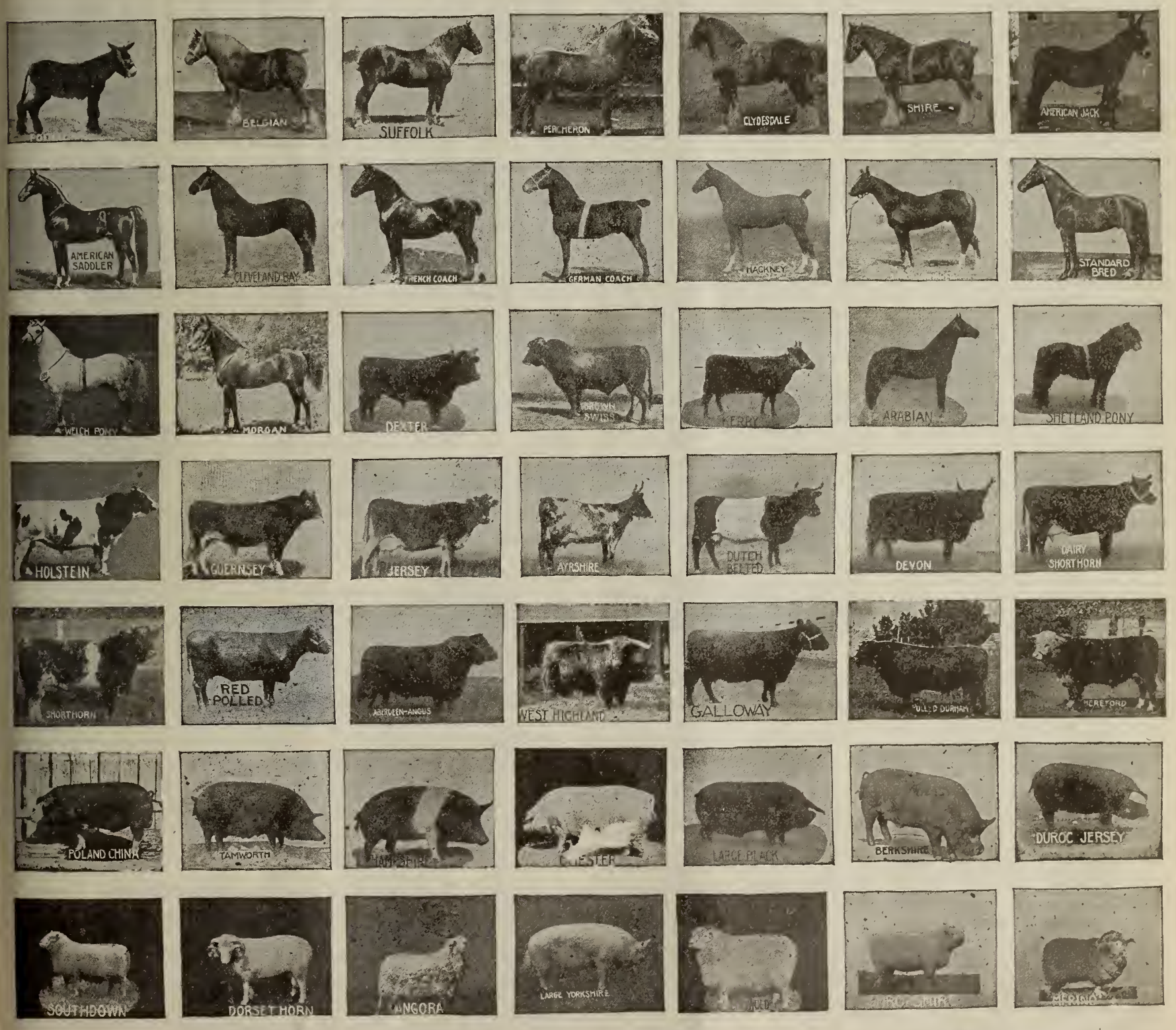
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Belgian Show Awards on Pages 6 and 7



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The Fundamentals of Breeding

LESSON VI; BREEDING AND ACQUIRED CHARACTERS

By H. W. Vaughan of the Iowa Agricultural College

Many persons insist that qualities in the parents which are the result of training or habit, or which have been in some way acquired by one parent, or both, may be, and are transmitted with as much certainty as color, form or height. This idea is especially prevalent among breeders of the trotting horse, many of whom believe that if a stallion is trained and raced and every effort made to develop his speed he will beget faster foals than if his speed were not developed. The same is thought to be true of the mare, and some believe there is an added advantage if the dam is trained and raced while she is carrying the foal.

It is not difficult to put faith in such a theory if nothing is known of the anatomy of the sex organs or of the physiology of reproduction, but anyone who is informed on these matters cannot accept such a theory. The fact is, it is impossible to see how the reproductive cells of the stallion may be affected by the body cells in such a way as to influence heredity. The reproductive cells have no connection with the cells of the muscles, nerves and other body organs.

The body of the stallion is simply a host for his germ cells, furnishing them nourishment and protection much as the dam nourishes and protects the embryo. So far as the germ cells of the mare (ova) are concerned, they are all present in the ovaries of the mare when she is born; and all that remains for them to do when the mare reaches breeding age is to increase in size and pass out of the ovaries in regular order at the periods of heat. Mr. C. J. Hamlin, one of the most noted and successful breeders of trotting horses, was one of the first to break away from the old-time practice of breeding only to developed sires, and the success he achieved afforded a practical demonstration of the fact that acquired characters are not transmissible from parents to offspring.

The average person makes the mistake of thinking of the stallion or mare as producing his or her germ cells. That is, we are apt to think of the germ cells as produced by the body cells. Nothing could be farther from the truth. The body cells and the germ cells are both the product of the fertilized egg from which the animal originated. Very early in the development of the embryo, one cell or group of cells was destined as the forerunner of the testicles, and hence of the spermatozoa, while the remainder grew and divided again and again to form the body. Thus the body does not produce the germ cells, but instead the germ cells and the body cells are both produced independently of each other by the original fertilized egg.

Thus we see that there is a continual stream of germ cell material running along through successive generations of animals. Scientists call this germ cell material the "germ plasm." Whenever two animals are mated the important result is that two streams of germ plasm are united to form a new stream which combines some of the parts of each of the contributing streams. If the inheritance is according to Mendel's law we know that half of each stream is contributed to the new germ plasm. Incidentally, a new animal grows up out of each new combination of germ plasm.

When considering breeding matters we should think of animals simply as storehouses for their germ plasm, and when we mate two animals we should not think that we are mating the animals themselves, but instead, that we are mating their stores of germ plasm. To the breeder, the body of an animal is simply a sample part of the characters contained in the germ plasm of that animal. If the animal is a good one, we know that these good qualities must also exist in the germ plasm of that animal. And knowing Mendel's law we are aware that this same good animal may also have some very undesirable qualities or characters represented in its germ plasm. Hence, when this germ plasm is mated with another animal's germ plasm, these bad qualities may be revealed in the bodies of sons and daughters.

If a trotting stallion or mare is trained and raced and shows a high rate of speed it is proof that the germ plasm has speed inherent in it, and that therefore the sons and daughters which arise from this same germ plasm should possess speed also. Training proves what the germ plasm contains, but training does not and cannot put anything new into the germ plasm. The untrained sire or dam transmits as much speed as though he or she had been trained. The advantage of training is that it helps to remove doubt as to the animal's ability, and therefore, of the ability inherent in the germ plasm of that animal.

Unsoundnesses in horses and other animals are acquired characters and cannot be transmitted. If a horse develops spavins after being moderately worked, it is proof that his hocks were weak from birth. It is also proof that weak hocks is an undesirable character represented in his germ plasm. Therefore, the germ plasm of his sons and daughters will probably also contain this undesirable character and they may themselves have weak hocks, which will form spavins easily. Diseases themselves are never inherited by offspring, but some weakness of conformation is very often inherited which predisposes the offspring to the same disease which affected the parent. The occurrence of spavins, curbs, ring bones, side bones, tuberculosis, and many other ailments in successive generations of animals is explained in this way.

If science does nothing more for the animal breeder than to point out some of the erroneous theories of breeding it will have rendered a great service. Science teaches reliance in the power of selection to modify and improve the types and breeds of live stock, and prevents the expenditure of time and energy in attempting to do the impossible.

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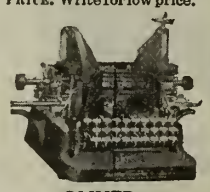
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THE AMERICAN BREEDER

With which is combined
THE STALLION AND JACK NEWS.

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"COUNTERFEIT" STALLIONS.

We have just received a communication indicating that a stallion "turned back" because "no good" had been resold to an innocent purchaser. This stallion had been given a fair trial of two years after reaching maturity. Less than a half dozen colts resulted from two complete seasons of service in the hands of an expert horseman. Such a stallion should be castrated. It is not likely that it will ever be much, if any, better. It is not only the great loss to the man who buys the stallion, but think of the thousands of dollars wasted annually by those who patronize such sires.

There are unscrupulous dealers who are only too glad to dispose of such a stallion or jack with a technical guarantee that cannot be realized on. Such transactions have placed the written guarantee in bad repute in some districts. Every man that purchases a stallion or jack should see the semen tested under a microscope before parting with his money. This is the only safe policy at any time, but there are many breeders who will not demand such a test. There are some who do not even know that such a test can be made.

For the benefit of the general public we are now starting a campaign against the "counterfeit" stallions and jacks. We will be very glad to have our readers send us the name and number and a good description of any stallion or jack which has been thoroughly and carefully tried and found barren. A copy of the pedigree should accompany this description, with the name and address of the one who sold the animal. We have information on some stallions which have changed hands several times. Occasionally the purchaser assumes all of the risk as to the stallion being fertile. Such transactions are honorable. If a breeder wishes to take his own chances, that is his business, but if a stallion or jack is purchased with the representation that the animal is fertile, when the seller knows the animal is barren, it is not honorable and such practices should be stopped. Occasionally a stallion or jack may be out of order for a few weeks or months and return to his normal condition. For this reason we ask that a thorough trial be given before a horse is condemned. Those which are known to be barren should be known to the breeders generally, so that there will be less fear of securing such an animal.

TURN THE TITLE AROUND.

An extremely interesting bulletin under the heading, "Influence of Size on Production," has just been put out by Director Quisenberry of the Missouri Poultry Experiment Station, and in it he considers, from the poultryman's standpoint, a matter that has been the basis of many discussions in connection with every kind of live stock.

Here is a question which would generally be much better understood if the title was reversed so that it would read, "The Influence of Production on Size." Almost every one of our readers has heard the statement time and again with reference to cattle, horses, hogs, sheep or maybe all of these, that some of the smallest females in the herd were the best producers, and thousands of times an erroneous conclusion has been drawn from such statements and the facts supporting them.

No animal, be it mare, cow or hen, is a better producer because it is small, but a very large majority of the best producers are undersized as a result of conditions having to do with their superior powers of production.

The writer has many times taken pains to ask the breeders who had remarked on the superior productive power of small animals, whether or not these animals were undersized in their immature state, and almost without exception it has been found that mares, for instance, were well grown as yearlings, two-year-olds and three-year-olds, and cows well grown and vigorous as heifers, but immediately upon dropping their first colts or calves they ceased to grow, all the feed they consumed and all the energy they stored, apparently going to the superior nourishment and development of their young.

In cattle there are many notable examples of this same condition and, of course, thousands which have never been noted. Typical among registered Shorthorn cattle in the little cow, Imported Clara 58th, one of the highest priced and most productive cows ever sold at Kansas City. She probably never weighed a pound more than she did on the day she was 30 months old, about the time her first calf was dropped. All there is to this phenomenon is that as soon as this cow began to reproduce, her entire life current was turned in that direction. She was especially well developed up to 24 months, perhaps, but beyond that point made very little growth for the reason that every ounce of her energy went into the production of the calves which made her famous, and sold for thousands of dollars.

The development of extreme speed in a filly has the tendency also to arrest her growth, and to a greater extent (because it is so vitally connected with reproduction) the development of extreme milking qualities in a dairy cow generally means the end of her growth so far as frame and muscle is concerned.

A little thought will show that this condition is nothing more than natural, for no dairy cow can be a great milker, no trotting horse can be a great performer, no brood sow or brood cow can be a great producer and developer of her young unless she is able to consume and properly digest a considerable amount of feed. If she has these qualities she will have made a good growth up to the time her growth is arrested by the demands of reproduction, or of extreme physical exertion, as in the case of racing. It is important, therefore, that anyone studying the question of animal characteristics should avoid the fallacy of thinking that since most of the best producers are animals of medium size or less than medium size that this lack of size is in any way an aid to production or performance. It simply shows, as we have already stated, that such an animal, being by nature a superior producer, gives its life so completely to this production that the commoner kind of growth is almost completely arrested as soon as reproduction begins.

As Mr. Quisenberry points out in his bulletin, this relation between production and size is a good thing to keep in mind in selecting females, but again we warn against the mistakes of reversing cause and effect. Lack of size in a healthy, well cared for hen is very likely to be a sign of a busy, useful life, but lack of size in a pullet before her laying period began, would be no reason whatever for expecting her to be a superior producer. The big, coarse mare or the big, beefy cow, may well be regarded with suspicion, but in the filly or heifer you want growth and thrift.

HOW AN ABUNDANCE MAY BE SAVED.

According to reports, the largest crop of wheat will be garnered this year ever gathered in a single harvest. The waste will be enormous. A one per cent loss may amount to nine million bushels.

In the strictly wheat producing sections the header is used extensively. The grain is allowed to ripen; then the machine is set high enough to clip the heads which are caught in the header barges stacked. A big field can be gathered quickly in this way.

Harvest usually lasts from ten days to three weeks in one section. Quite frequently hands are hard to obtain in one section while a surplus can be found in another. Unsettled weather conditions sometimes add to the difficulties.

Binders can be used in a field about ten days sooner than the header. By this method a less number of men can make a start, at least, and can place in the shocks a good share of the crop before it is time to use the header. It would give the farmer two chances at saving his crop. Bound wheat can be set up in large shocks so that it is practicable to protect it with canvas shock covers. All this could be finished in advance of the header harvest, by which time there usually is gathered a sufficient force to take care of the remainder. The bound wheat could remain under the covers until it could be threshed from the shock.

But the average farmer does not wish to invest so much money in machinery to be used only a few days of the year. It would seem to us that this would be an opportunity for enterprising men or corporations to lease binders to the farmers. For instance, if one firm owned 50 binders and would begin with the harvest about the first of June in Oklahoma, and move north as the grain ripened, they could end in North Dakota in September. The binders could be leased or operated for so much a day, or by the acre, and each set of binders could be looked after by expert mechanics carrying plenty of repairs and supplies, so that there would be very little time lost on account of breaks. By having all the machines of one make, the supplies could be more easily carried.

Arrangements with the farmers might be made through mills or elevators of the different sections. The various elevator associations, representing different sections, might arrange a route for the owner of a "battery" of binders.

There is entirely too much waste in this country. The enormous increase in population demands more bread each year. It is not altogether in the production but it is necessary that the harvest shall be completed without so much unnecessary waste.

THE FEET.

With the beginning of dry, hot weather the feet of horses or jacks usually lack moisture. Stock which has been confined, and more especially jacks, need particular attention at this time. The feet will get hard and long, raising the frog from the surface.

All owners of equine stock should provide a chute where a large box could be placed, campelling an animal to stand in mud composed of water and clay. The material in the box should not be higher than the hoof. No material should be used in the mud mixture except water and clay. Filth is injurious to the feet. If it is necessary to trim the feet the animal can be placed in this pit a suitable length of time to soften the feet, then they can be pared easily. Some jacks that have very long feet should not be trimmed down too much at this time. After the foot has been properly adjusted it is often advisable to clean out around the frog and tamp table salt in about twice a week, as this purifies the surface tissues in these parts.

Every horse raiser should pay much attention to the trimming of feet. This is especially true with colts. Quite frequently a deformity will develop because the feet have not been properly trimmed. Animals constantly confined have been practically ruined because the feet have not been taken care of. Horses which are allowed the use of a pasture usually get sufficient dampness from the morning dews. This is a natural remedy. Jacks or jennets may not take enough exercise at the proper time, even though they are in a pasture. A great many lame horses and jacks have been greatly benefited by soaking the feet and trimming them down to their natural form.

The best remedy, however, in this case is the preventative. It is very easy to handle this condition and no breeder should be found guilty of having a crippled animal from the lack of a little work and moisture.

THE SELFISH "DOG LOVER."

A short time ago a gentleman living near Meriden, Kas., heard of a neighbor being sick. He promptly quit his work and paid the sick neighbor a visit. Upon entering the yard he was met by an apparently savage dog which bit him several times. The sick neighbor, who was able to sit up, saw the performance, and after some little time scolded the dog and made it quit. As several mad dogs recently had been through that section, the visiting brother hurried to a physician, who advised him to purchase the dog and have it destroyed so they might make an examination and learn whether or not it was affected with rabies. The owner of this dog was greatly offended at such a proposition and said that he would just as soon part with one of his children.

In order to be safe the injured man was brought to this city for treatment, which cost two weeks' time, a considerable expense, and some suffering. A few days later the dog disappeared and was discovered to have gone mad after doing a considerable damage through that section. Any one can judge the results of such a

condition in a community. The gentleman who refused to deliver the dog is receiving his punishment daily and it is likely that this punishment will last for a considerable length of time. The individual who thinks more of his dog than he does of his children would not make a very satisfactory neighbor or father. It is likely that this incident will make this man think of a few things which never entered his mind before. One of these is that "there are others." No man can live unto himself.

A LETTER AND ITS ANSWER.

To Mr. D. C. Crabtree:—After seeing your name in the American Breeder I write you regarding the capsule breeding. I see you bred nine mares and got eight colts at a single service with the capsule system. I will now ask you to write me your own experience in artificial breeding, as I have a horse and jack and am very badly crowded and know nothing about the artificial breeding at all. I would like to know all the particulars how artificial breeding is carried out, such as how you keep the semen the same temperature, and if it is necessary to be kept the same, and in just what way the capsule should be placed in the womb; also your way of opening up mares before a service with horse when a mare has missed a colt for one or two years. —J. F. Tyler, Johnson County, Okla.

To the American Breeder:—I have been trying to get subscribers to the American Breeder and some say they would like to take it and think it is all right. But times are very hard here and people have not got any money at all. Some say they will subscribe after harvest. Some say they haven't time to read. Some say it is enough for me to understand the business and they will trust it all to me. BUT IT WOULD BE A GREAT DEAL BETTER IF THE MARE OWNERS WOULD TAKE THE PAPER. Then they would understand if the breeder was treating and breeding their mares intelligently. I breed a very small grade of mares, but the horses in this community are a great deal larger than five years ago. I have been using an imported Belgian stallion, and mares, mostly ponies, have raised colts weighing from 1,000 to 1,300 pounds of good conformation. This spring I sold the old horse and bought another three-year-old imported Belgian, and have all the business I can handle with using capsules. I breed him three times per week; have bred as high as eight at one service. I sent the Mare Owners' Edition to some of my non-believers and they seem to understand that it is the only way to use a good sire, as a man can practically handle all the business that will come and everybody can use a good sire that wants to. Some of them have thanked me for sending them the paper and have renewed, and some have not. But I can tell it is a good way to advertise, and very cheap. I intend to send a lot more to my customers if I get the opportunity. I received my posters and will put them up today. I want to come to the Breeding School again this winter and I think I will bring four men with me. I am sending you a letter, one of several which I have received this spring asking about the capsule system. I wrote them and told them all to go to the School at the first opportunity, as that is the only place to get the desired information. I am quite sure I cannot tell anyone in one letter how to handle the capsule breeding.—C. L. Crabtree, Harper County, Okla.

All the live stock and farm papers in the country have received, from the United States Live Stock Sanitary Ass'n, the following "Resolution To Farm Papers:" viz; "Resolved that it is recognized no drug or drugs have yet been discovered which are specific for the cure of Hog Cholera. Therefore, this Association respectfully requests Agricultural papers to refrain from advertising such so-called Cures." Now watch the "Cholera Cure" ads drop out.

Modern Horse Breeding

About six years ago there began coming many requests to the editor of the American Breeder asking him to start a breeding school where plain breeders could come and get practical work and instruction. These requests were so persistent that a term of school was advertised and held. Twenty-three students attended the first term of school. The instruction during the first few terms was not very complete, but those breeders who attended the first term, because they were earnest and wide-awake, have done exceptionally well. The school has continued to improve, both in quality and attendance. Nearly one thousand of the best breeders in the United States have now attended the Graham Scientific Breeding School. The effects of this instruction are international in scope. Some of the students who have attended this school have crossed three thousand miles of water; many others have traversed half the breadth of this continent. Out of the great number who have attended we do not know of a single individual who has been dissatisfied with the instruction. A majority of them have been able to double their incomes without increasing their investments.

The next term of this school will be held in August, beginning early Monday morning, August 10, and lasting one week, with illustrated day and night lectures and demonstrations. It is remarkable how much practical breeders can learn in one week by keeping right at it. School begins every morning at 7:30 and lasts until 10:30 at night. Every students is expected to take part in the practical work. The instruction is so plain that any one can understand it. One student who could not read nor write, but who paid strict attention, has given perhaps as good results as any other student who has attended.

The most interesting work is the dissecting of diseased mares. Mares are put to death and strung up in a row. An instructor stands by the side of each mare, teaching each student as he comes. It takes a considerable length of time to go through this work. Each student is taught the necessary things, such as the location and nature of the genital tract of a mare, making an examination of the ovaries, different conditions found in the vagina, neck of womb, uterus and kidneys. There is a good deal more of this than the average breeder expects to find. After the class is through with this lesson the genital tracts of the different mares are dissected out and placed side by side. Then the students are taught how to diagnose the different diseases from the specimens. It is remarkable how quickly this can be done when properly demonstrated. It is very interesting to watch the students through this work. More especially do they pay more attention to the condition of the genital tract infected with the germ called "Barrenness in Mares." These men are taught how to diagnose the most important diseased conditions of the genital tract, by the use of the speculum. After they are versed in this condition they can readily go home and see a lot of things on their own mares that they never saw before.

Some have thought that this school was only a place where capsule breeding was taught. Capsule breeding is taught at this school but the instruction generally, is of greater importance to those individuals who are confined to the natural service. When only natural service is employed, every service must count in order to be profitable. The capsule breeder can breed a few shy breeding mares without much loss. Those who have carefully studied the American Breeder make the best students. The American Breeder is also a great help to them after they attend this institution.

Every breeder who can possibly attend should do so at the August term of school. It will give him a chance to clean up a lot of mares this fall and he will not have them to contend with next spring. The shy breeding mares in a community are not very profitable and the diseased mares are a serious menace to any breeder. When a mare having the disease called "Barrenness in Mares," is served, the stallion or jack will carry those germs to clean, healthy mares for several days, and infect them. There is absolutely no question about that being a fact. To guard against this condition is not only a matter of dollars and cents—there is a considerable honor connected with such a proposition. The breeder who will deliberately scatter such infection is not a very profitable citizen. He who scatters the germs either knowingly or through ignorance gets the same results. The longer this matter is put off the more serious it will get. Practically every breeder can turn to his books and see where the stallion or jack has served a mare and other mares following failed to get with foal. He can follow the next service on this mare and find the same results.

The disease caused by the germ called "Barrenness in Mares" is not easily described. A mare may present a healthy looking appearance, be in good flesh, smooth hair and young, but a good look with a speculum by one versed in this particular disease should readily show what to do with her. This information is not difficult to acquire when animals both dead and alive have been had for class work.

A fortune has been spent in bringing this profession to a higher standard. Thousands of mares have been examined. We say a profession because it is a profession. Scientific breeding is a new profession. The Graham Scientific Breeding School is not a veterinary college, although it does teach how to prevent disease. It deals almost exclusively with the organs of reproduction. This school should not be classed in any way with any other profession. Practically everything it teaches is not taught to any great extent in any other profession. We acknowledge the assistance received from female specialists as being of much importance in this school. All of the regular instructors except two are post-graduate veterinarians who have been doing work recognized by the Bureau of Animal Industry for years. Another one of the instructors is a professor of animal husbandry who has given special attention to the breeds and types of horses. In the lecture work of these instructors, three thousand lantern slides, prepared especially for this work, are available for illustration.

The tuition fee is $25—which gives a life membership in the school. After one tuition is paid the student can return to as many sessions of the school as he cares to, without further cost. This school is guaranteed to be satisfactory to the student. If not satisfactory the tuition fee will be refunded, the student alone to be the judge. All he has to do to get his money back is to say that he does not believe that he has learned $25 worth and he gets his money back. This proposition has been made during all the years that the school has been running, and not a single man has ever asked for his money yet. Students get so much more than they expect that they do not begrudge the few dollars they have spent for it. The information delivered at this institution is plain, direct and brief and just the most important points are given for plain horse breeders. It is not necessary to study a lot of books; just listen to the lectures, watch the demonstrations and take part in the actual work.

Fathers or mothers need not be afraid to send their boys to this institution. The moral training they get will never be forgotten. Certain diseases will be be avoided when the truth is made plain to them. The students all stay at the same hotel where they can be together and their interest held in line with their work. It reminds one of a large family. These men all being in the same business naturally get acquainted quickly.

Don't forget the date, August 10 to 17. Be on hand and become equipped to clean up a lot of old mares so they will not be in the way during the next breeding season. For further information write to Frank B. Graham, Manager, 225 West Twelfth Street, Kansas City, Mo. —Adv.

THE COST IN LIVES AND CASH.

Colorado has a state health commissioner who, like the holders of similar offices in other states, is getting right down to plain, unvarnished truths in his campaign to show the serious need of better sanitation. Whether brought about by poverty, ignorance or carelessness, the fact remains that the penalty for living under unsanitary conditions, falls heaviest on those least able to bear it. The work of the public health officer, when done as thoroughly and honestly as most of them seem to be doing, is truly a service to those who need it most.

The Colorado health commissioner is Dr. J. N. Hurty. Through the agricultural college he is extending his campaign for better farm sanitation and for a part of it he gives the following example of death and financial loss and the living conditions to which this loss was almost directly traceable:

"His house was built flat upon the ground. No underneath ventilation. There was a small cellar. It was musty. Vegetables, rotton and unrotten, were stored in it. The house was heated by an 'air tight' stove. All windows were fastened down. All window cracks were calked with rags.

"The barn was 328 feet from the kitchen door. There was a big pile of manure against the barn. There were maggots in the manure. Flies, thousands of flies, were born in the manure. In the barnyard were cows and pigs. They waded the barnyard pulp. Just fifty-three feet from the kitchen door was a privy. It was dilapidated. Clouds of flies surrounded it.

"Under the back porch was a dug well. He didn't know its depth. An old sock was stretched over the pump spout. It was there to strain out worms and little water bugs. The water had a funny taste. A garbage tub stood just outside the kitchen door. There were maggots in it. Flies were born by the thousands.

"One day his daughter came down with typhoid fever. A doctor was employed. Medicines were purchased. His wife did the nursing. She also cooked for her husband, her son and a hired man. She was worn out. She took typhoid. The daughter died. Then the mother died. The son took typhoid. He survived. A nurse was employed. She stayed after the mother died to nurse the son.

"The cost. Doctor bills $410. Nurse $140. Medicine $23.60. Two funerals $416. Court value of the mother's life (average court judgment) $4,600. Court value of the daughter's life $5,000. Loss of time (estimated) $300. Total $10,809.60. Does it pay to be insanitary? Does induced sickness and early death tend to produce health and happiness?"

A TIP FOR THOSE WHO HAVE LAND TO DISPOSE OF.

To the American Breeder:—Enclosed find check for $4.00 for ad in your paper. Will say it proved very satisfactory as I made a deal on my farm. Had lots of inquiries for the land. Wishing you every success.—A. Altman, Norton County, Kansas.

Diagnosing Ills of Horses

Lesson V; Disorders Caused by Functional or Organic Changes of the Bowels.

There is perhaps no class of ailments that gives rise to distressing symptoms which appeal to the average individual so much as those disorders occasioned by functional or organic changes in the bowels. Under this heading may be discussed the many phases of colic.

The horse has a stomach holding only a few gallons of food or liquid and that organ may be said to be only in a limited way concerned in digestion. The organ is not only small to begin with, but it may be said that only one-half is really concerned in digesting food, the other half being lined with a mucous membrane closely resembling the aesophagus. The major portion of digestion is accomplished in the small intestine, a gut something over 70 feet in length. A horse by nature partakes of food at frequent intervals thus giving the stomach sufficient time to perform its part of the digestive process and prepare the way for intestinal digestion. As horses are kept largely under artificial conditions, being fed at stated intervals, and usually being put to work before the digestive functions are well under way, it follows that an animal will be inclined to consume more at one time than it can properly digest. Especially is this true if the digestive function is interfered with, as in the event the animal is required to do hard physical labor shortly after it has eaten its meal.

A premature movement of the food along the alimentary tract is likely to occur if the horse is permitted to partake of quantities of water shortly after eating. At this time the stomach is already filled to its capacity with food, and the water imbibed washes the food out of the stomach into, and even through, the 70 odd feet of small intestines, only to cause it to lodge in the large bowel where digestion is tardily accomplished. Such a state of affairs affords a good opportunity for intestinal indigestion to occur. This, if it does occur, will give rise to one of those distressing cases of colic, in which the formation of gas is shown by the bloated condition of the animal. The term "wind" or "flatulent colic" is often applied to these cases. If not relieved the animal will exhibit the most intense agony and may die.

As a result of the pain the animal suffers it will move about in a restless manner, will paw, lie down and roll, break out in sweat, breathe rapidly and betray symptoms of the most intense agony. The chief symptom that enables one to detect this form of colic is the bloating in the flank region. The animal appears unnaturally full through these parts and when tapped upon with the fingers has a drum-like sound. The accumulating gases do not always find escape posteriorly as fast as formed, neither are they permitted to gain exit by way of the stomach on account of certain valve like arrangements preventing them. If these avenues of escape are not adequate it is only a question of time when the gut will give way under pressure of the gas resulting in a rupture which means death to the animal.

Long continued cases of bloating, not sufficient to rupture the bowel, sometimes produce death through absorption of the gas into the circulation, producing either a direct poison or causing clots to form in the heart and producing death in that way. Rapid gas formation or protracted flatulent colic are both to be feared for the above mentioned reasons. One may produce death by rupture, the other death by auto intoxication.

If an animal is worked unduly hard or goes more than the usual time without its meal, thus becoming fatigued in either case, it prepares the way for a case of indigestion centering in the stomach. Particularly is this true if the animal is worked shortly after eating. Under these circumstances the horse, on account of being tired and hungry, consumes his meal too greedily and hurriedly, the mass being imperfectly masticated and the organs in no condition, on account of fatigue, to do their normal work. How many owners of horses, prompted by kindness, have given tired animals, worked past regular meal time, an extra amount of grain, only to spend the rest of the night trying to save the animal from acute indigestion. Such practices are very much in error and if any change for the betterment of the animal is to be made under these conditions it should be rather in the direction of reducing the amount of grain for that particular feed.

The problem of thrift and well being in either man or animals is not so much how much they eat as how well the food is digested. There is no question but that a great deal of food is simply wasted, not only on the human family, but on animals, by overfeeding.

If the food is not digested in the stomach to the point where the organ should digest it, it will ferment and flatulence will occur. Such a disorder is even more serious than intestinal flatulence, on account of the limited space of the organ.

The gases cannot be expelled by belching through the aesophagus, because of the valve-like arrangements in the lower end of the latter organ. For a time the gas may escape into the small intestine, but its entrance is still nearly a hundred feet from the anal opening, in the course of time the stomach will become displaced so that the opening into the small bowel becomes locked and rupture and death are certain to occur if the condition is not relieved.

Cases of stomach or gastric flatulence are not always easy to recognize. It is only when the stomach is distended to that point where it produces a noticeable fullness through the middle of the body or slight belching of gas is observed that one feels sure he is dealing with stomach flatulence.

The other symptoms are largely those of other forms of colic, namely: Rolling, sweating, distressed breathing and so on. Perhaps the breathing is more distressed in such cases than in other forms of colic, for the reason that the distended stomach presses directly on the diaphragm and it in turn on the lungs, thus offering mechanical interference with the act of inspiration or filling the lungs with air. This will cause the animal to dilate the nostrils greatly and give rise to blueness of the mucous membranes, the blood not receiving its normal supply of purifying oxygen.

It is very unusual in the horse for an animal to become seriously distressed from merely overloading the stomach. Such cases are only rarely met with, but inasmuch as such a state of affairs will usually arrest digestion it is only a question of time when flatulence will occur.

Many cases of colic partake of the nature of involvement of both stomach and intestines. One or the other is the primary seat of trouble, the other participating shortly after. Whenever an animal experiences great pain in any part of the digestive tract it is reasonable to suppose that all processes of digestion to which the organs of the body contribute will be in a great measure suspended so long as the painful state goes on. There are other forces that may still aid in keeping up the digestive changes. These come through the action of bacterial life as well as chemical alterations.

Another form of colic in which pain is evidenced is that occasioned by inactivity of the bowel. This may reach a point of total suspension of bowel movement, when the term impaction applies. As a rule, impaction of the bowel is brought about through errors in diet. The kind of food that contributes most to impaction is such as is dry and abounds in indigestible fiber. Dry, innutritious wheat straw is prone to induce this trouble. In order to obtain sufficient nutriment an animal consumes an unreasonable amount.

On the other hand it cannot be charged that dry forage alone is responsible for all cases of colic brought about through impaction of the bowels. It is a matter of observation that alfalfa hay will produce some of the most obstinate and fatal cases of impaction known. While alfalfa is one of the most valuable plants known we doubt if the majority who feed it to horses have a full appreciation of how it should be fed. Horses grow very fond of it, they consume more than they can digest if fed too freely, their bowels become literally cramped with it, digestion and peristalsis are arrested and the horse in time dies from effects of an impacted bowel.

Alfalfa hay should be parceled out to horses just the same as grain, and should not be made an exclusive hay ration even when some grain is fed. Lack of water and anything else that contributes to dryness of the digestive tube, may be set down as contributing causes to impaction. The chief symptoms are disinclination to eat or drink, uneasiness, pawing, lying down, rolling moderately early in the attack. The horse may be sick for several hours without exciting much attention. The symptoms all increase in severity as the case goes on. The bowel will for a time appear to be fairly active, but it will be noticed that the evacuations are not copious. They grow less and less until they cease entirely. This feature is very misleading to most owners of horses, for frequently the horse has exhibited severe pain for several hours before the bowels have completely suspended action.

This point is governed much by the location of the impacted mass. If the impaction exists well back naturally cessation of bowel movement would take place early. The majority of cases, however, occur in the double colon so that the back bowel continues to empty out for some time after the trouble begins.

"INFORMATION SUCH AS ONLY THE AMERICAN BREEDER GIVES."

To the American Breeder:—Please send me four of your posters, and I'll secure all the subs I can for I can see very plainly that the mare owners of my community need information, such as only the American Breeder gives. We have "scrub horses" and "fogy ideas" to contend with same as other places, and only information of this kind will remove the prejudices.—Virgil J. Stone, Stephens County, Okla.

AS VETERINARIANS ARE COMING TO SEE IT.

To the American Breeder:—Just received the first number of the American Breeder. Am well pleased with it and would not take the three years' subscription price for the one copy. The stallion that I came to Kansas City to see you about is doing fine, serving two mares a week with success. Hoping to see you next winter, I am.—J. H. Mingle, D. V. S., Polk County, Iowa.

Partially Personal

He who hesitates is bossed.—Kansas Industrialist.

Russian buyers (the Russian government doing an important part) have paid out over a half million dollars for American trotting horses. The importations began in 1892 with two stallions, but not much was done until the World's Champion Stallion, Croesus, was bought for the Russian government stables a few years ago.

"Pa, what does 'electioneer' mean?"
"It means 'talking for votes.'"
"Does it get the votes?"
"That depends on the voter."
"Who is the voter?"
"He is the guy who puts 'election' into 'electioneer.'"

One of the new features of the State Fair in Missouri this year will be the silo school proposed by W. L. Nelson, assistant secretary of the Missouri State Board of Agriculture. There will be a special section of the fair devoted to erected silos of all kinds and to models of makes not putting up full size structures.

As a reward for the first prize essay in a national "good roads" contest, the winner, a Kansas girl named Amy, is to be sent to the Good Roads Congress next fall. Our acquaintance with girls named Amy does not automatically suggest road congresses under the heading of "rewards."

Some sport, writing in opposition to an advocate of dog suppression, in behalf of sheep, states (by way of argument) that five pups from his bitch brought $100 and that she now has seven, worth $125. Yes, and some saloons will even excel that rate of income. Still we think the cause of sheep and sobriety is not wholly lost.

Huerta is beginning to sound like Harry Thaw to our eyes.—Kansas Industrialist. Yes, and to taste like the Metropolitan franchise to our noses.

From the American Hereford Journal we learn that W. H. Curtice has sold his Hereford bull, Beau Perfection 24th to Col. E. H. Taylor, Jr., for $12,000. As all parties to the transaction are Kentuckians, no one need wonder at the magnificent scale upon which it was conducted.

But it remained for four Chicago bidders in a public sale to jointly buy a four months' old Holstein bull calf at the reported figure of $20,000. Men have been known to do funny things at auctions.

Beginning June 10, and thereafter on the second Wednesday of each month, the Nebraska College of Agriculture is giving lessons on hog vaccination, and other practices calculated to help in cholera control. These monthly meetings will be at the college farm adjoining Lincoln.

Captain Burke Burnett, owner of the famous 6,666 ranch in King County, Tex., is making preparations to raise cavalry horses for the United States army, and has already begun the stocking of his ranch with blooded animals of the cavalry type.—Texas Stockman & Farmer.

If, as has often been asserted, our fashionable horse shows are used chiefly as stage settings for showing off "society," the Commencement Horse Show just held at Columbia, Mo., was superfluous. The Missouri variety of "Sweet Girl Graduate" requires neither background, scenery nor sideshow to help her hold admiring attention.

The Belgian Show Awards

According to the votes of the judges in the Belgian Stallion Show, the best 12 stallions entered are the ones pictured on the opposite page. It was the intention to name only ten places, but after selecting ten showing the best percentage (based on the judges' votes), we decided to award eleventh and twelfth places to the two ranking next. A half dozen other entries in the show had as much as one vote each for tenth place or better, and the stallion given eleventh place had two votes for sixth place and one vote for eighth place. The fact that some of the cuts did not print up clearly made it difficult for the judges to allow with satisfactory accuracy for difference in condition, which cuts some figure in heart girth as well as in conformation. We believe, however, that no man can compare the dozen animals (and their measurements) shown opposite, with the five dozen from which these were selected, without feeling that the judges did a pretty fair job, and that if all the photographs could have been equally clear, showing all the animals standing naturally and in the same position, any errors which possibly may have crept into this rating would have been eliminated. Below we give the entry number, name of animal, and owner, of every entry that appeared in the Belgian Stallion Show. Thousands of our readers have saved the issue of May 5 to study in connection with this list.

The Entrants

No. 1—Rollo 4846, H. L. Morgan, Garfield County, Okla.
No. 2—Clovis D'Aelbeke 4522, L. E. Van Arsdale, McDonough County, Ill.
No. 3—(Seventh place) Muret 3586, A. R. Fox, Tama County, Iowa.
No. 4—Fiche de Thimeon 3998, Roy D. Collins, Dawson County, Mont.
No. 5—(Tenth place) Faro de Tripsee 4923, Hildebrand Bros., Tama County, Iowa.
No. 6—Faro Chasseur 4568, H. A. Johnson, Webster County, Nebr.
No. 8—Mikado 5247, D. A. Hill, Lincoln County, Nebr.
No. 9—(First place) Frank Bolser 6750, Chas. A. Wentz, Wyandotte County, Ohio.
No. 10—Bourgoyne de Faubien 7076, F. Henslin & Sons, Dodge County, Minn.
No. 11—Rebequois 4196, L. R. Lee, Green County, Ill.
No. 12—(Third place) Bonaparte 6074, W. W. Alexander, Franklin County, Kans.
No. 13—Galant de Frasues 3453, Lansing Belgian Horse Co., Yuma County, Colo.
No. 14—Favori de Segelsem, Leon Van Meldert, Harris County, Tex.
No. 15—Escadron du Balkan, Leon Van Meldert, Harris County, Tex.
No. 16—Godefriod de Cort 7155, M. B. Koffrath, Union County, Ohio.
No. 17—Dose de Leeze 2177, O. B. McClurkin, Louisa County, Iowa.
No. 18—(Fifth place) Moteur 4121, A. E. Hinckley, Knox County, Ill.
No. 19—(Ninth place) Coco de Rol 6115, A. E. Hinckley, Knox County, Ill.
No. 20—(Second place) Nivillies 5014, Dick Lieder Paulding County, Ohio.
No. 21—Piston 2312, C. L. Rovang, Lyman County, So. Dak.
No. 22—Faro du Chateau 8065, W. F. Dusell, Chippewa County, Minn.
No. 23—(Eleventh place) Mayence d'Opbrakel 2893, Wm. Hartman, Scotland County, Mo.
No. 24—Carnival II 6788, L. E. Martz, Mercer County, Ohio.
No. 25—Gugusse D'Emines 4641, J. M. Faris, Wild County, Colo.
No. 26—Louis D'Or 2867, Geo. S. Perkins, Peoria County, Ill.
No. 27—Major De Ruyen 4053, R. R. Pittis, Harrison County, Ohio.
No. 28—(Sixth place) Brilliant de BreEyck 7208, O. M. Mouse, Bates County, Mo.
No. 29—Robus 5410, Heath Bro. & Co., Prowers County, Colo.
No. 30—Corton D'Keumill 3278, Gus Goerne, Sumner County, Kans.
No. 31—(Twelfth place) Frontain 5514, G. W. Chandler, Anderson County, Kans.
No. 32—Brilliant 3740, I. P. Grandmougin, Cloud County, Kans.
No. 33—Dandy 5366, E. B. & F. B. Henderson, Jefferson County, Pa.
No. 34—Indigene 4957, A. W. Prindle, Ash County, Ohio.
No. 35—Bernoville 5387, Simonsen Horse Co., Brown County, Minn.
No. 36—Arinet De Belle 4219, J. V. Mayer, Wiltman County, Wash.
No. 37—Marin 3094, F. W. Moeller, Calhoun County, Iowa.
No. 39—Sultan 6190, F. J. Magnuson, Gosper County, Nebr.
No. 40—Reviste 5528, John Barnes, Moultrie County, Ill.
No. 41—Modele 4442, Bert Taylor, Tillman County, Okla.
No. 42—Rogeur De Seumoy 3633, Geo. A. Fluhrer, Renville County, Minn.
No. 43—Vermouth, L. L. Kloeckler, Cotton County, Okla.
No. 45—Louis D'Belle Croix 6610, J. J. Adams, Tulare County, Cal.
No. 46—Brilliant Cal 4441, Oscar Lorence, Putnam County, Mo.
No. 47—Colas, B. S. Hollopeter, Sweet Grass County, Mont.
No. 48—Toby 5071, Blackwelder & Taylor, Dickinson County, Kans.
No. 49—Boer de Zellick 3185, John Todd, Cuyahoga County, Ohio.
No. 50—Jef de Meux 6825, L. C. Radebaugh, Fairfield County, Ohio.
No. 53—Florin D'Or 5109, J. W. Thomas, Morrow County, Ohio.
No. 54—Cavilier 5156, R. S. Brookings, Stark County, No. Dak.
No. 55—Robert II De Rum 3595, Lars O. Benston, Fillmore County, Minn.
No. 56—Arlequin 6181, Benj. Hunnicutt, Furnas County, Nebr.
No. 57—Fatal 5502, Purinton Bro., Franklin County, Nebr.
No. 58—Pompon de Saintas 4543, Hatteberg Bros., Ford County, Ill
No. 59—Bacchus de Roulers 4858, A. T. Milroy, Thomas County, Nebr.
No. 60—King Leo 4653, Artie J. Ward, Jackson County, Kans.
No. 61—Fos de Wielsbeke 3961, Peter Bros., Lyman County, So. Dak.
No. 62—Bailey de Thorembaise 1702, Robert R. Johnston, Teton County, Mont.
No. 63—(Eighth place) Girard 6212, Thos. Hutchinson, Crawford County, Iowa.
No. 64—(Fourth place) Neron 6151, Geo. Gehl, Cavalier County, No. Dak.

N. B.—Awards in Percheron show announced soon.

Questions and Answers

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

Sign Your Name and Address to all Questions.

1127—HYDROTHORAX—At what location would you enter a trocar in a horse, between the eight and ninth ribs, for the purpose of draining the chest cavity for pleurisy, or after it turns into hydrothorax, or would you drain the cavity at all? Which would be the necessary time to use trocar for pleurisy or for hydrothorax. I am taught that it is not a successful operation at all, and that the water gathers after pleurisy. I saw a horse die with it this week.—West Virginia Subscriber.

REPLY—If you are a veterinarian you should know where to tap a horse for hydrothorax, otherwise you should not indulge in an operation of this nature that carries with it more skill and judgment in order to perform it successfully than to merely shove a trocar between a horse's ribs. Let it be understood that these columns are for our readers who can not have access to skilled veterinary services and who have cases that can be helped by suggestions from us without endangering the lives of the animals under consideration. We are not conducting a correspondence school on the general subject of veterinary service.

1128 — GROWTH IN GENITAL TRACT—I have been breeding horses and jacks six seasons and have examined lots of mares. I have examined one that beats me. She has something grown on the mouth of womb the size of a hen egg; something like a small bladder; seems to be a thick veil grown over the mouth of the womb near the opening to get through into the womb. Is there a remedy for this? If there is any breeder that has met with anything like this I would like to hear from him. This mare is eight years old and they claim she raised a colt three years ago. She is a lively mare; seems to be healthy except the heaves.—Oklahoma Subscriber.

REPLY—You do not make it perfectly clear as to whether or not the opening through the cervix is positively occluded. If a capsule can be passed into the uterus it might be well to try foaling the mare. However, the presence of tumors such as appears to be present in this case as well as heaves is against conception. You can only determine the results by trying.

1129 — QUESTION RELATING TO COW—I had a cow die a few days ago and will ask what you think was the matter with her. She calved in the morning in a pasture and I discovered her about noon and drove her and the calf to the house about one mile. She was all O. K. the rest of the day but the next day she got down. She seemed O. K. when I turned her out in the morning but when I went after her in the evening she was down and seemed to be in a great deal of pain. I thought she would die within an hour or two so left her but she was still alive the next morning, so I killed her. I cut into her and found she had failed to clean and that the afterbirth was stuck to the inside of the womb in about 50 places on little knots, varying in size from a small marble to a man's fist. They were real dark red. What was the cause of the afterbirth sticking. Are these knots normal? This cow was 15 or 16 years old and had never had any trouble calving.—Montana Subscriber.

REPLY—Your question does not enable us to form a definite opinion as to the cause of the death of your cow, but the indications are that it was perhaps parturient paresis. Perhaps you were not present at such time as you could observe the symptoms preceding her going down. It is nothing unusual for these cases to retain the afterbirth as described. The condition of the genital tract noted was perfectly normal for the cow species.

1130 — IRREGULAR ESTRUM—I have a fine cow that was fresh last July and has been irregular in heat periods since about the middle of October, which was her first heat period. I bred her and she did not come in until December 25. She sluffed off considerable white, slimy stuff since then and has apparently been clean and healthy, varying in time between periods from 18 days to five weeks. She is in good condition and giving a good flow of milk. Is six years old and has never missed getting with calf at first breeding. Has always had good wheat pasture all winter and has had the run of short wheat pasture and good grass all spring. Do you think this cow has diseased ovaries or some other ailment? I asked a graduate veterinarian and he said the trouble was most likely in the ovaries and could not be treated very successfully.—Oklahoma Subscriber.

REPLY—The irregularity of the estral period is indication of derangement of the ovaries. Some of these cases can be helped and some cannot. When irregular function is dependent upon cystic formations in a cow they can be ruptured and oftentimes useless animals can be made regular breeders. Do you have access to a veterinarian that has made the breeding problems a special study?

1131—MARE FAILS TO BREED—A man brought an eight-year-old mare to our place to breed May 23, 1914. This mare was bred every 18 to 21 days including August 15, 1913, when she was bred the last time that season. This mare seemed to be in heat on May 23, 1914. When I examined the os, or mouth of womb, it was soft and open for about one inch. There was a membrane that prevented further en-

(Continued on page 8.)

MARE OWNERS CO-OPERATION

Owners of good stallions and jacks have had an opportunity to know something about the difficulties of this breeding season. Practically every community has suffered as a result of not having a better knowledge of horse breeding among the mare owners.

Count the scrubs and mongrel stallions that should be castrated in every breeder's district. Think of the abortions and the large number of colts which have died from ignorance. Those who expect to have better results next season should start preparations immediately. Right now is the time to begin planning for an improvement in the next breeding season. The owner of every good stallion and jack can well afford to take advantage of our exceptional educational proposition, which is as follows: We will send the American Breeder to patrons of stallion and jack owners five months, beginning in September and ending in February, in clubs of ten or more, for ten cents each. Each customer will get ten issues of the paper for ten cents. We notify these subscribers by mail from this office who has paid their subscription. This proposition is important from an educational standpoint, but it is even more valuable as an advertisement. Those who wish to increase their patronage, as well as the per cent of foals, should not overlook this great proposition. Send lists of names and addresses at once, while you think of it, so you will not overlook this proposition.

Winners in The Belgian Stallion Show



No. 9—(First) Height, 68; Heart, 95½; Bone, 11.



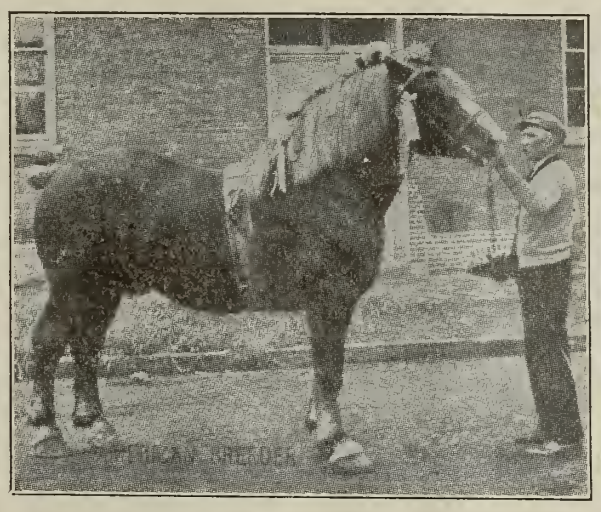
No. 20—(Second) Height, 68; Heart, 97; Bone, 11¾.



No. 12—(Third) Height, 66; Heart, 90; Bone, 12.



No. 64—(Fourth) Height, 67; Heart, 95; Bone, 11.



No. 18—(Fifth) Height, 69; Heart, 95; Bone, 11.



No. 28—(Sixth) Height, 70; Heart, 96; Bone, 11.



No. 3—(Seventh) Height, 66; Heart, 96; Bone, 12.



No. 63—(Eighth) Height, 70; Heart, 99; Bone, 11½.



No. 19—(Ninth) Height, 69; Heart, 96; Bone, 11.



No. 5—(Tenth) Height, 67; Heart, 94; Bone, 11½.



No. 23—(Eleventh) Height, 66½; Heart, 94; Bone, 11¼.



No. 31—(Twelfth) Height, 68; Heart, 95; Bone, 11½.

QUESTIONS AND ANSWERS.

(Continued from page 6.)

trance. Is this mare in foal? If so, is this the mucous plug? If this mare is not in foal will it be safe to break this membrane? This mare has never brought a colt.—New Mexico Subscriber.

REPLY—By this time a rectal examination should disclose whether or not this mare is in foal. From your description we are of the opinion she is not in foal and when satisfied by a rectal examination that she is not pregnant we would suggest that after the membrane spoken of is ruptured and the uterus is found to be in good condition that she be bred with a capsule.

1132—STERILE MARES—I have several mares that have failed to have colts for two years. When they make water they have a yellow sediment in their urine and some of it sticks to their vagina. What is wrong with them and what can I do to cure them? —Texas Subscriber.

REPLY—Such subjects need the attention of some one competent to pass on them after making a careful manual examination. There are so many things that are responsible for sterility that it would only be a guess on our part without a more detailed description of the actual conditions existing.

1133—RETENTION OF THE URINE—In case of kidneys not acting what should one give?—New Mexico Subscriber.

REPLY—We presume you have in mind the old notion of painful conditions of horses that are thought to be occasioned by inability on the part of the animal to void its urine. This is one of the errors that has been handed down from generation to generation. Retention of the urine is a very rare experience in horses; in fact, the few cases met with are largely from mechanical interference, such as gravel or are occasioned by paralysis of the bladder. We could only attempt to answer your inquiry when based on some definite case.

1134—NAVEL ILL—We have been having lots of trouble with our young colts and mules. We lost four last spring and two so far this spring, with bleeding through the kidneys. Most of them are sick as soon as they are foaled; others get sick in a day or two. If you have any remedy please let me know what it is.—Kansas Subscriber.

REPLY—We have from time to time had a great deal to say through the columns of the American Breeder about the disease ordinarily known as navel ill. This is a very fatal disease of the young and when contracted nearly always die unless treated by a skilled veterinarian and even then that individual is too frequently called too late to render the best of service. The best way to handle navel ill is to prevent it by thoroughly disinfecting the stump of the cord and apply agents that will dry it up. This treatment must be given two or three times a day until the danger is past on premises that are infected. Mares should be permitted to foal in the pastures if the weather will permit, and kept there if possible. The infection is usually greater about the barn and lots.

1135—CONTRACTED TENDONS—I have some young mules from very fine Missouri jacks. I have one that has a weakness in both ankles and the foot turns back and it walks on the foot back to first joint: the hoof turns back. One is weak in knee some way. Write me fully just what to do in this case.—New Mexico Subscriber.

REPLY—As a rule the young outgrow these crooked conditions, but when the contraction of the tendon is sufficient to cause the foal to knuckle entirely over then the part needs to be carefully supported with bandages and splints. In many cases it is advisable to have a competent surgeon sever the tendon or tendons so that the foot can be brought to its normal position. The parts may or may not need to be supported with splints after the operation.

1136—STALLION SERVED A DISEASED MARE—I have a Percheron stallion. I bought him in July, 1911. He had been four years old in June, 1911. I used him for service in 1912 and bred 93 mares from March until September, and there was only a very few that did not get with foal. Breed only two mares a day, as a rule, and breed three only a few times in a season. When I had them early in the morning and late in the evening in 1913, I bred 100 mares from March until August, under the same rules as 1912, and there are only a few that proved to be with foal. The horse was in good order and seems to have had courage in every way. He is ready to serve a mare any time I want him to. This season it seems to be the same as last. The mares keep coming back again. Could you tell me what might be the cause of it, or if there can be anything done to make the horse sure again? I feed him oats and hay and I think he gets plenty of exercise. I drive him in a cart when I take him out.—Illinois Subscriber.

REPLY—Until the last year we have always thought that serving a certain class of diseased mares was not injurious to the stallion. Experiments that have recently been carried on, however, has proven the fact that stallions can be injured from such practices. This horse may recover from this in time. We would suggest that you limit this stallion to one service a day and use a microscope on him at each service so as to see whether the spermatozoa are fertile or not. When you get another stallion be more careful about the mares he serves.

1137—LAME COLT—I have a yearling colt that is very lame in stifle. Can you tell me what will cure a stifle? I think the cause was from navel ill. I just got the colt.—Minnesota Subscriber.

REPLY—You have made a bad bargain in trading for or purchasing a colt now lame in the stifle from presumably navel ill. Such cases are very slow to recover and sometimes never become sound under any treatment. Such a case needs the services of a careful veterinarian, inasmuch as it may be necessary to withdraw some of the fluid that may have collected in the joint as a preliminary to treatment.

1138—SLOW STALLION—I have read ads about pills for slow jacks and horses. We have a two-year-old horse running bred, but he won't serve a mare, and we have two mares we want to breed. There is no other horse in the country of this kind. Could you tell us how much Spanish Fly to feed him to make him serve these mares?—Subscriber.

REPLY—Turn your stallion loose with your mares and if there is any way to get a service he will get it. Do not use any Spanish fly as it is dangerous.

1139 — THREATENED ABORTION—Do you think a mare in foal will get pain like colic when pulled too hard on the manure spreader in a soft or wet place? She got pains the day after she was pulled and again about a week later. This was about five weeks before her time to foal. She had pains again two days after foaling. Three weeks before foaling she acted just like a mare in heat with some blood in the urine. This was seen for two days, once each day when started home. I have been feeding four quarts of oats in winter with red top hay and straw three times a day, and in spring I increased to six quarts and no oat straw. She weighs 1,550 pounds and is in good flesh. Been working her half a day and she has run in the pasture the other half. Could you tell me what made her milk flow four days before she foaled? When she was put in the barn the milk went in streams from her teats: her bag has not been handled in any way. The colt was poor in flesh and the navel cord was three times as large as the other colt's navel. Now this colt when five days old died from constipation. Somebody wrote in a farm paper that a colt should be given from one to four tablespoonfuls of one part sweet oil and two croton oil, according to the severity of the attack. This was a bad case so I gave four tablespoonfuls. Do you think that was too much? The colt got worse and died the next day.—Minnesota Subscriber.

REPLY—We do not think you have shown good judgment in pulling a mare hard in soft wet places on a manure spreader when she is heavy in foal. Such practices often induces abortion and we wonder how your mare escaped as she surely showed symptoms of threatened loss of the foal. The treatment for constipation in the foal was entirely wrong as the amount of castor oil given would very likely kill a healthy colt. We are at a loss to know how any individual could recommend such a drug for young foals especially in the doses mentioned and can only infer that they did not know their business. Remember this: If you are to succeed in the horse breeding business you must use your pregnant mares with greater care and gentleness than you do the mares not in foal or the geldings.

1140 — OVARIAN EXAMINATION—We have two mares, a sorrel five year sold and a roan nine years old, which raised colts in 1913, but failed to settle again. I tested them for acid with blue litmus paper but it

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Colt For Sale; All Very Choice.

Marmotte (imported); 2 years old; 17 hands; 1,600 pounds; black and strictly good.

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If you want something strictly good come and see this young stock and get prices. I am a breeder and want you to see my herd.

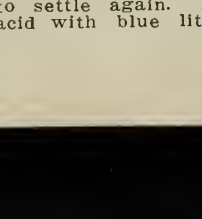
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These stallions are all sold under a guarantee to be 60 per cent foal getters. I have four year olds that weigh 2,200; 2 coming 3 that weigh 1,800. Can sell a good ton stallion for $750; sound and right in every way; some a little higher, and some lower. I will sell at a bargain to early buyers. I have both imported and home bred. PETER J. EGGERS, DENISON, IOWA.

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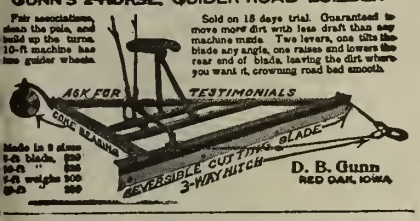
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10-ft " 300
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No. 11—Special Stock Yards Horseman's Whip, full length, 10½ feet; lash 5 feet; 12 nickel ferrules. Prepaid for **$1.00.**

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came out unchanged, so I had some red litmus paper and thought I would try it. When I drew it out after connecting it with the womb it had turned blue. What would you call this and how should I treat them? These mares were bred to a neighbor's stallion last season. Would you advise an inexperienced man to try to make an examination to tell whether the ovaries are enlarged or not? If a common man can do it how should he go about it?—South Dakota Subscriber.

REPLY—The mare in which the litmus paper changed color should be delayed breeding for awhile. This is not ordinarily a serious condition and she will probably fertilize a little later on if nothing else interferes. The average breeder does not know how to make ovarian examinations. He should have some special training along this line. It is not difficult after one gets to understand just how it is done; any one can easily be taught how to do it by having an animal to work on.

1141—MARE FAILS TO CONCEIVE—I have an eight-year-old black Shire mare, which has raised several colts. She missed last year and I have already bred her three times this season. I had a veterinarian examine her. He found her healthy but womb very open. She sweats very easily this spring and seems to be short winded. She urinated frequently in a peculiar manner like mares in heat. There is no capsule breeding down here or else I would try it.—Kansas Subscriber.

(Continued on page 14.)

Live Stock, Hay and Grain Market Review

The volume of business in horses and mules is ended for this season. That was demonstrated last week when most dealers reported no demand the entire week and when some of them hiked to summering points. The expansion in the trade is expected to slow up toward the latter part of August. Between now and then trade will be along the usual hot weather lines, a slight fluctuation in prices when values are tested, and common quality in general prevailing.

One condition, however, promises to prove an exception to the rule of hot weather trade. Crop conditions now which are most promising, probably will give rise to buying of thin horses by prospective feeder buyers. It is their object to purchase in the hot months when demand is small, rest the animals on grass and have them in good condition for early winter feeding. This practice if followed to any extent should insure a liberal supply for the early 1915 markets, although the grain feed for them will have to be drawn from this year's crop. The economy of the situation is said to lie in the fact that the animals will derive greater gains in weight and strength from the rest than from the actual amount of feed.

Some sales of range horses will be held in July and August, and judging from range reports ou pastures, they will be in excellent condition for the sales. While a good many ordinary light horses will be offered there are a good many of the toppy kinds, the result of the recent up-breeding movement in the Northwest.

Conditions in the Southeast cotton states, to which section there was a heavy movement of mules in the spring, is not as promising as a year ago. Lack of moisture has curtailed the cotton growth to a marked degree. In the Southwest cotton belt conditions are better. Construction work in railroads promises to look up. A number of lines have financed and are ready to increase trackage in the Northwest that will require large grading. Lumber business is rather quiet. Coal sections are operating full time.

While some lines that require horse power are being operated on a small basis, the general outlook is that by fall general adjustment will be made on the basis of the new wealth produced in the immense crops.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Drafters, 1700-pound extra quality.	$250@300
Drafters, good to choice	200@245
Drafters, fair to good	150@185
Chunks, good.	150@180
Chucks, fair.	95@150
Southerners, good to choice	130@150
Southerners.	65 up
Mules—	
13½ to 14½ hands	100@135
14½ to 15½ hands	130@165
15½ to 16 hands	160@210
16½ or better	200@265

Steer Prices Sagging.

In the past two weeks killers have been relentless in their pressure in steer prices. They have marked the market down 35 to 50 cents on all classes of killing steers, except those that show a moderate to prime finish from dry feed. That class, however, is scarce, and when offered killers need them. The class most discriminated against has been the warmed up kinds, and those that show grass. A good many straight grassers are coming from South Texas on the quarantine side, and the movement will broaden as the season advances. North of the quarantine line, pasture men are showing a disposition to hold cattle for weight. They will continue to hold unless weather conditions prove adverse. In the mountain sections, hay fed cattle have about all been shipped and those now grazing will be held until cold weather turns them either to market or feed lots, probably the latter, as prospects for a big hay crop are promising.

The top price for steers in Chicago the past week was $9.35 and in Kansas City $9.10. The large per cent of the killing steers sold under $8.50, and as low as $7.25. Quarantine cattle sold at $6.50 to $8.10, mostly grassers at $6.60 to $7.50. Some choice beet pulp steers from Colorado brought $9, a new record price.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$8.75@9.25
Good to choice steers	8.10@8.70
Fair to good steers	7.65@8.10
Common to fair steers	6.85@7.60
Meal fed, choice	8.00@8.60
Meal fed, common to fair	7.25@8.00
Quarantine steers, fed	7.25@8.10
Quarantine steers, grass fat.	6.25@7.20

Butcher Cattle Slump.

In proportion as cows and heifers are showing increased weight from grass to that extent are they lower in price. This is the season of the year for such an adjustment and compared with a year ago prices are still high. Prime fed heifers and steers and heifers mixed have not been affected in price; they are unseasonably scarce, and probably will continue so. Some prime heifers sold up to $9, and steers and heifers mixed as high as $9.10. Bulls and calves were 25 to 50 cents lower.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice.	$6.75@7.75
Good to choice	6.25@6.70
Fair to good	5.50@6.20
Common to fair	4.60@5.50
Canners.	4.00@4.60
Heifers—	
Choice.	$8.50@9.00
Good to choice	8.00@8.45
Plain to fair	7.00@8.00
Common.	5.75@7.00
Veal calves	6.50@9.75
Bulls	5.00@7.00

New Low Level for Stockers.

In the past two weeks prices for stockers and feeders declined 75c to $1, and were the lowest this season. Receipts were small and demand very narrow until prices reached the low point, and then not enough cattle were offered either in number or quality to test how much of a recovery the market had made. Large orders are held waiting this week's supply.

The following quotations are for the various grades of stock and feeding cattle:

Selected feeders	$ 7.50@ 7.65
Good to choice feeders	7.00@ 7.25
Fair to good feeders	6.50@ 6.90
Plain to fair feeders	6.00@ 6.50
Selected stockers	7.40@ 7.60
Good to choice stockers	7.00@ 7.35
Plain to fair stockers	6.50@ 7.00
Stock calves.	7.00@ 7.75
Stock cows.	5.00@ 6.00
Stock heifers.	5.25@ 6.75
Milch cows	60.00@110.00

New Low Level for Hogs.

Hog prices twice in the past two weeks broke below 8 cents and then rebounded about 25 cents. Packers have continued their bearish tactics but on each break a strong shipping demand supplied formidable competition. At the beginning of last week a fear was expressed by some traders that continued high temperatures and dry weather would force a large movement of stock hogs to market. Rains relieved this situation and with corn in a most promising condition it looks as though those who sell hogs on a stock basis will find a relatively better outlet in a home market. Iowa will need a large number of hogs to offset losses of last year. The condition of her corn crop is reported as 101 per cent, about 21 per cent better than a year ago.

The following quotations are for hogs:

Choice, 250@300 lbs.	$8.10@8.20
Choice, 200@245 lbs.	8.00@8.17½
Medium weight.	7.90@8.15
Light weight.	7.75@8.10
Common to fair	6.50@7.65
Stags	6.00@7.85

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week
Monday.	$7.90@8.17½	$7.80@8.07½
Tuesday.	7.85@8.12½	7.85@8.15
Wednesday	7.80@8.10	7.90@8.20
Thursday.	7.85@8.12½	8.00@8.25
Friday.	7.90@8.20	8.00@8.30
Saturday	7.90@8.20	8.00@8.20

Fluctuations in Lamb Prices.

Prices for lambs have fluctuated within a range of 50 cents, the crest of the up movement being reached early last week, and by Friday the list was down 25 to 35 cents from the top. Supplies are increasing from all angles and killers are anticipating lower prices. Sheep are about steady compared with two weeks ago.

Spring lambs are quoted at $8.25 to $9.25, native sheep $4.75 to $6 and clipped Texas sheep $4.50 to $5.75.

New Wheat Crop Available.

New wheat will be offered in large quantities at primary markets in the next ten days and trade will then turn to a new crop basis. The winter wheat yield will be about 638 million bushels and spring wheat 262 million bushels, a total of 900 million bushels and 137 billion bushels larger than

ALFALFA
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Rich alluviai soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something reaiiy good. Ample rainfail.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Buiiding, Kansas City, Mo.

VALLEY FARMING LAND OPEN FOR FREE SETTLEMENT.

Large tract of good valley farming land just thrown open for free settlement, in Oregon. Over 200,000 acres in all. Good climate; rich soil, and does not require irrigation to raise finest crops of grain, fruit and garden truck. For large map, full instructions and information, and a plat of several sections of exceptionally good claims, send $3.40 to John Keefe, Eugene, Oregon; three years a U. S. surveyor and timberman. An opportunity to get a good fertile free homestead near town and market.

STOCK FARM FOR SALE

To settle an estate; 483 acre stock farm in Whiteside County, Ill.; 250 acres under cultivation; 30 acres timber and rest extra good pasture, can be broke up; 12 room house; horse barn 40x80 feet with 16 feet lean; other buildings in proportion to size of farm. No better farm in Whiteside County. For particulars call on or write,

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Farm For Sale

Well improved 160-acre farm, access to free range; $12.50 per acre.

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last year, and about half the estimated world's production.

Wheat—		
No. 2 hard	.90	@93
No. 3 hard	.89	@91½
No. 2 red	.91	@91½
No. 3 red	.89½	@90½
Corn—		
No. 2 white	.72½	@73
No. 3 white	.71	@72
No. 2 mixed	.70	@70¼
No. 3 mixed	.69	@69½
Oats—		
No. 2 white	41	@41¼
No. 2 mixed	40	@40½
Rye	63	
Chop	1.36	@1.37
Bran	99	@1.00
Barley	51½	@ 55
Shorts	1.12	@1.19

Alfalfa on New Crop Basis.

Prices for alfalfa quoted are for the new crop. They are $2 to $3 under the level the old crop brought in the final offerings. The crop is said to be large. No change in quoted prices of prairie and tame hay, though demand is small.

Quotations are as follows: Alfalfa new, choice, $13.50@14; No. 1, $12@13; standard, $10@12; No. 2, $7.50@9.50; No. 3, $5.50@7; prairie choice, $17.50@18; No. 1, $15.50@17; No. 2, 13@15; No. 3, $7.50@12.50; timothy choice, $17.50@18; No. 1, $16.50@17; No. 2, $14.50@16; No. 3, $12@14; clover mixed, choice, $16@16.50; No. 1, $15@15.50; clover, choice, $13@13.50; No. 1, $11@12.50; straw, $5.50@6; packing hay, $5@6.

DOGS AND OUR MUTTON SUPPLY.

In spite of increasing popularity of mutton and lamb and the high market prices for sheep there has been no increase in the number or size of flocks in the farming states.

We have only to glance at British agriculture to appreciate the fact that as land advances in value and better business methods are adopted the place of the sheep upon farms becomes an increasingly important one.

The superfluous dog in villages and on non-sheep raising farms constitutes a very serious obstacle to the logical development of farm sheep husbandry in the United States. The Bureau of Statistics has recently received from its county crop correspondents a very interesting and suggestive set of replies to questions prepared by the Bureau of Animal Industry.

When asked to name the things that prevent more general keeping of sheep thirty states give as a large majority of their answers "dogs." Six states answer "fences," indicating a lack of working capital as a hindrance to sheep raising. The total replies from the thirty states referred to are distributed as follows: Dogs, 526; fences, 191; price of wool, 122; miscellaneous, 63.

OUR CHIEF GOAT MARKET.

Kansas City is the leading goat market of this country. Goats to the number of 36,620 were received at Kansas City during May. This was the record for any May. The previous high mark reached for May was made last year, when 26,609 goats were received here.

The April receipts of this year broke all former records for any month of any year, amounting to 42,234. But in April's receipts many of the goats received came across the line from Old Mexico, while the run of last month was made up largely of goats from Texas, New Mexico and Utah.

FOR SALE BY OWNER AT BARGAINS

Four choice irrigated alfalfa ranches in Colorado, with excellent water rights, adjoining good ranges; taken on debts. Call on or write

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A Department For Women

THE GREATEST "SUMMER SCHOOL."

"The greatest summer school," writes Prof. C. C. Sargent of the Colorado Agricultural College, discussing the summer's idle school houses, and the break in school work, "is the one maintained by Mother Nature and she offers courses in every rural district, yet no provision is made in our school system to take advantage of them.

"In the fall school opens again, in most cases with a new teacher who tries for days to find the pages of the last lessons assigned, and weeks in "trying and fitting" to see where pupils belong, then to discover that knowledge is volatile and that much of what should have been remembered has evaporated during the long summer vacation.

"Time is lost, money is wasted, the children become discouraged, lose grades, drop back, grow old and drop out of school without getting even an elementary education. These are some of the reasons that three-fourths of all the children in the rural districts never finish the first eight grades.

"Much of this could be prevented if every country school had a ten-acre school farm, a modern school house and a cottage home for the teacher who is employed by the year and could remain in the district during the summer months and meet the pupils once a week at the school house and have charge of boys' and girls' clubs and otherwise direct their educational activities throughout the entire year instead of the itinerant teacher employed for but a few months."

PANAMA-PACIFIC EGG LAYING CONTEST.

To the American Breeder:—One of the chief features of the great poultry show to be held in connection with the Panama-Pacific International Exposition will be the international egg laying contest, which will begin on November 1, 1914, and continue for twelve full months. The contesting pens will each be composed of ten females of the same variety, in which the birds must be at least eight months old and not more than eleven months old on the opening day of the contest. The competition will be open to the world and all birds will be housed and fed alike.

The owner of the pen making the highest annual egg record will receive a trophy and $75 in gold; the second prize will be a trophy and $50 in gold; third prize a trophy and $25 in gold, and the fourth prize $10 in gold. The leading pen in each variety will be awarded a medal and $10 in gold. The owner of the hen making the highest individual record will be awarded a trophy and $15 in gold; second prize $10 and third prize $5. The owner of each hen making a record of over 200 eggs will be awarded an Exposition trophy.

All entries wil be booked in the order in which they are received, and all entries will close on October 15, 1914. All birds must have been bred by the exhibitor, who shall be the owner at the time of the contest and who shall have owned the parent birds of the pullets entered and shown.

Any exhibitor who desires may include a male bird in each pen entered in this contest, and he may have the first privilege of securing eggs for his own use from such pen. The right is reserved by the Department of Live Stock to select eggs for hatching purposes from pens which include male birds. A uniform charge of $1.50 per 15 eggs will be made to cover the cost of baskets, packing, shipping, labor, etc. All eggs will be packed in baskets.—I. D. Graham, Assistant Chief, Live Stock Department, P.-P. Exposition, San Francisco, Cal.

PATTERNS FOR WOMEN AND CHILDREN.

SPECIAL ANNOUNCEMENT. We will forward, on receipt of 5c the Summer number of the Home Dressmaker, illustrating the latest embroidery designs, as well as hundreds of designs of garments for Misses, Women and Children, and containing two pages of hints on Home Dressmaking.

9938 Ladies' Dressing Sack.—Cut in 3 sizes: small, medium and large.









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RAISE PIGEONS

They Pay Dollars while Chickens pay cents.

The young, 20 to 25 days old, sell for 40 to 60 cents each (according to the season). The city markets are always clamoring for them.

Each pair of Pigeons will raise 18 to 22 young a year.

They will clear you, above all expenses, $5.00 a year per pair. They breed the entire year. Twenty minutes daily will care for 100 pairs.

Always penned up out of the way. Very small space required.

All this is fully explained in this month's issue of our Journal; send for it; price 10 cents.

Reliable Squab Journal, Versailles, Mo.

It requires 2½ yards of 24-inch material for a medium size. Price 10c.

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9940. Ladies' Night Gown wit Yoke Band.—Cut in 3 sizes: small medium and large. It requires 5 yard of 36-inch material for a large size Price 10c.

9948. Girls' Dress.—Cut in 5 sizes 6, 8, 10, 12 and 14 years. It require 4 yards of 36-inch material for an 8 year size. Price 10c.

9545. Girls' Dress.—Cut in 4 sizes 4, 6, 8 and 10 years. It requires 3¼ yards of 40-inch material for a 6-year size. Price 10c.

9960. Ladies' House Dress.—Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5 yards of 44-inch material for a 36-inch size The skirt measures about 2 yards at the lower edge. Price 10c.

9942-9941. Ladies' Costume.—Waist 9942 cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. Skirt 9941 cut in 5 sizes: 22, 24, 26, 28 and 30 inches waist measure. It requires 5⅛ yards of 44-inch material for the entire costume in a medium size. The skirt measures about 1¾ yard at the foot. Two separate patterns 10c for each.

Scientific Poultry Raising

How to Double the Value of Half the Increase by Caponizing (Castrating) the Roosters. Inventor of Caponizing Instruments Offers to Furnish Instructions for Making and Using Instruments.

To the American Breeder:—As president of the Kansas State Poultry Federation and State Executive of the American Poultry Association, it is a part of my duty to give as much useful information to the farmers and poultry raisers as possible.

A profitable way to "swat the rooster" is the important thing at this season. The market demands infertile eggs and the best way to get them is to caponize the surplus roosters at once, saving the egg crop and at the same time "cash in" both ways.

To make a capon you must have tools to do the work. Many people hesitate to buy expensive instruments. I made my first set from an old pitch fork tang and later improved on it and had it patented. My business is to farm; I am not prepared to enter the manufacturing business in a large way, and have decided to give the farmers and poultry raisers an opportunity to use my patent rights if they so desire.

The fact that a surgical instrument maker is putting my style of instruments on the market without authority gives me a logical reason for offering the farmers and poultry raisers use of my patent. It is my wish that the farmers take advantage of this offer.—George Beuoy, president Kansas Poultry Federation and State Executive Committee, American Poultry Association, Cedar Vale, Kas.

Editor's Note:—Mr. Beuoy has given us the following signed proposition for publication:

"To any poultry raiser in this country who cares to use my patent number 1,025,362, May 7th, 1912, I will be glad to give written permission to do so. It will be necessary for you to have the written permission in order to protect yourself.

"This patent covers the latest and only modern caponizing instruments. It has taken me more than eight years of steady work to bring them to their present state of perfection. The great advantage in these instruments is their simple construction and ease with which they can be made and used. This patent covers both a spreader and renover. The only other instruments necessary to make a capon is a common pocket knife with a sharp, thin blade and a small hook for tearing the thin tissue membranes that cannot be cut. A sharpened button hook is plenty good enough for this small part.

"The important point is that most anyone can make a set of these instruments. All that is required is two pieces of Bessemer steel rod, each twenty inches long; one for each instrument and a copy of the patent, which contains the blue prints illustrating the instrument in different positions and sections. The patent not only shows by pictures exactly how the tool is made but has detailed instructions as to exactly how to make it, so that anyone who is at all handy with tools can do it.

"The important point in making an instrument of this kind is to get it adjusted properly. In adjusting them I always use a fine hair to test every part of the grasping points much the same as you would to test a razor. The only difference being that a razor cuts the hair when just right. The Renover should hold it tight without cutting or letting it slip. To get this nice adjustment use a piece if emery cloth and a fine file.

"To get a copy of the patent, all you have to do is to write to the Commissioner of Patents, Washington, D. C., and ask for a copy of patent number 1,025,362, issued May 7th, 1912, to Geo. Beuoy, Cedar Vale, Kas. Enclose five cents in silver to cover the regular government fee for copy of patent and it will be mailed to you promptly. You know the government will furnish you or anyone else a copy of any patent for five cents in silver (stamps not accepted).

"I will be glad to give written permission to use the patent to make one set of instruments for your own use. I also have some booklets with illustrated instructions showing exactly how to use the tools so that you can do the work just as good as I can. I will send one of the books without cost to you.

"Capons you know are the most profitable part of the poultry business. Half the chicks raised each year are male birds and the only profitable way that I have found to dispose of them is to make capons of them.

"Capons sold on the open market bring from fifteen to twenty-five cents per pound, live weight. It is easy to make them weigh ten pounds each, which means that you will get from $1.50 to $2.50 apiece for them, and you can sell them all in a bunch and get the money in a lump sum which is a big item."

ANGORA GOAT RAISING.

The raising of Angora goats in the United States is now a demonstrated success, according to a report just published by the United States Department of Agriculture under the title, "The Angora Goat," Farmers' Bulletin 573. The industry, says the bulletin, is indeed so well established here that growers need not be inconvenienced by the action of South Africa in prohibiting the exportation of Angoras, for the quantity of good blood in this country is already sufficient to meet all requirements. In the opinion of experts the best American fleeces now equal any grown in South Africa or Asia Minor, the original home of the Angora.

Formerly the use of mohair depended so largely upon the prevailing fashion that its price varied widely from year to year. This condition, however, is rapidly changing as new uses for mohair are continually found, from automobile tops and table covers to dress goods and curled false hair, and today the grower is assured of a reasonably steady market. The price of course varies with the quality, the very best fleeces bringing on an average from 42 to 55 cents a pound. The weight of a fleece has a very wide range but in 1909 the average for Oregon was found to be 3.7 pounds and for Texas 1.85. On account of the great heat, however, and the damage of shedding, Angoras in the Southwest are frequently shorn twice a year—a fact which must be taken into consideration in all calculations.

This practice of clipping twice a year is in many ways a drawback to the industry since it tends to lower the average grade of American mohair.

Six inches is the shortest length of fleece usually desired, and, because of shearing twice a year, much Texas and New Mexico mohair falls below this standard. Where the fleece is allowed to grow for twelve months, the average length is 10 inches. Romeo, the sweepstakes buck at the El Paso show in 1910, is an example of what is possible. His fleece weighed 18 pounds, measured 20¾ inches in length and sold for $115. Such fleece is not of course the product of ordinary commercial conditions. It implies a considerable amount of care and personal attention.

The birth rate is approximately 65 per cent but in well managed flocks this has risen on occasions as high as 120 per cent. Since the kids are not hardy, it is obvious that this means skill and industry during the breeding season. The best methods of caring for the flock at this time are discussed in some detail in the new bulletin.

TWELVE LITTERS; 112 PIGS.

To the American Breeder:—I am sending you 50 cents for your paper. We are having a beautiful spring here; wheat looking fine and corn is coming along fairly well. Farmers are breeding more mares than they did the past two seasons. I have 112 Duroc pigs from 12 sows—litters ranging from 11 to 17. If any of the boys in Missouri can beat that I would like to be shown.—O. C. Hatch, Butler County, Neb.

Hog Breeding; Lesson IX

THE VALUE OF HOG COMFORT

Editor's Note:—So many of our subscribers have written us of their interest in hogs, that we are continuing, in the following article, a series of "lessons" on hog raising. This material is based on the knowledge of practical men and the best trained observation and experimental data. The reader will, of course, need to give all the additional study he can to the subject, but these lessons should serve well as a general guide and a foundation on which to build.

There is no animal kept on the farm which suffers more from the extremes of heat and cold than does swine. His coat covering furnishes very little protection from the cold and since the hog does not perspire he cannot stand excessive heat. While these facts are true, there is perhaps, no farm-kept animal which receives so little attention in the matter of protection from extreme hot and cold weather. Good shelter for the hog, both winter and summer, will yield as great a profit as will shelter provided for any other class of animals. A number of years ago the Kansas Experiment Station fed one lot of hogs in an open yard with a board fence on the north side as the only protection, and another lot in the basement of a barn. They found that the hogs in the unsheltered lot required 25 per cent more grain to make 100 lbs. gain than was required by those which were sheltered. This test was with pure-bred hogs, weighing 200 to 250 lbs. each, and was carried on for ten weeks, beginning November 27, through weather ranging in temperature from 12 degrees below zero to 31 degrees above. This experiment indicates the saving made by protection from cold. The writer knows of no definite experiment carried on to show the value of supplying a cool place for hogs in the summer. There are many practical hog men, however, who agree that a like or even greater saving may be effected by making the hogs comfortable in the hot weather. The writer once fed out a bunch of fat hogs on a bluegress pasture in which there was a large pond. This pond had a hard bottom and did not become muddy and filthy, hence the hogs were allowed to lie in the water when they wished to do so. The result was that gains were put on much more rapidly by this bunch than by similar hogs not supplied with the luxuriance. Now, water which is stagnant and becomes filthy may keep the hogs cool, but the evil results from the unsanitary conditions may more than over-balance the good derived from protection from the heat. Where clean pools or wallows can be had, however, they do much to keep the hog comfortable in summer. By adding some good dip to such places the lice problem is of little importance.

Water to lie in, however, is not absolutely necessary provided plenty of good drinking water and shade is provided.

Two or three pounds of water is stored in the animal's body for every pound of muscle added, hence the necessity and economy of furnishing plenty of water to drink. Most feeders realize the importance of supplying plenty of drinking water, but it oftentimes is an easy thing to neglect. There are others who think if they are feeding slop that enough water is supplied. The water in the slop, of course, helps to supply the water requirement, but additional water should be added.

If the hog lot does not contain plenty of natural shade, then artificial shade should be supplied. Hog cots made so as to have at least one removable side are good to use at this time, or shades may be made by setting four ordinary fence posts so that they may be covered with plank or canvas.

Another thing which help to keep down gains in the summer and which keeps the hogs from doing their best, is dust. This is especially apt to cause trouble in places where shade is provided. Spraying of crude oil is a cheap and efficient way to keep down the dust. No hog can do his best if



ONE WAY TO SECURE HOG COMFORT.



A SAFER WAY AND EQUALLY EFFECTIVE.

he is continually coughing and wheezing, due to dusty quarters.

It is hardly necessary to mention that to be comfortable the hog must be free from lice and worms. Methods of eradicating the same have been discussed in former articles.

Comfort usually costs less than feed but it is attention to such details which enables the feeder to reap the largest returns from feed supplied and to succeed in the hog business.

PARALYSIS IN HOGS.

To the American Breeder:—Partial or complete paralysis of the hind legs of hogs is seen so often in swine herds that a common cause has been suspected but not definitely determined.

Inbreeding, parasites, and an unbalanced ration, have each in turn been assigned as the probable cause of this particular form of paralysis, and now it is quite generally attributed to a lack of phosphate of lime. This salt in a form that can be appropriated may be deficient in the ration or not properly appropriated by the tissues of the body, or again, it may be because of a drain on the system for phosphates to nourish the growing fetus or the young after birth.

It is a well known fact that there is a deficiency of phosphate of lime in the bones and other tissue of pregnant animals and in those that are suckling their young. This is especially true of the sow. But this condition is not confined to pregnant animals. In one instance a herd of 44 hogs, of both sexes, and ages ranging from ten months to two years, nearly all of them were affected with partial or complete paralysis of the hind legs. The ration had been largely raw potatoes.

They appeared to suffer no pain, the appetite was quite normal. A balanced ration would probably have prevented this condition. The following treatment has been recommended and should be helpful in these cases: One tablespoonful of cod liver oil, fifteen grains phosphate of lime and three drops of fluid extract of nux vomica mixed with the food twice a day.—Geo. H. Glover, Colorado Agricultural College.

CORN EAR-WORM AFFECTS 60 PER CENT OF EARS.

It costs the farmers of Kansas four to eight million dollars a year to feed the corn ear-worm, according to investigations made by James W. McColloch, assistant entomologist at the Kansas Agricultural College. Extensive examinations have been made, each of the last six years, and it has been found that at least sixty per cent of the ears produced in the state are injured, and that three to twenty per cent of the grains on these ears are destroyed.

"The injury does not end with the destruction of the grains," explains Mr. McColloch, "for it has been found that certain molds and bacteria develop where the worm has been feeding, which in many cases produce blind staggers in horses."

The corn ear-worm is destructive to the sorghums, alfalfa, cow-peas and tomatoes, as well as corn. It is able to fly long distances, and is therefore a serious pest to control. No method has been found to eliminate entirely the damage done by the ear-worm, but the individual farmer can greatly reduce the injury to his crop by planting a thoroughly prepared seed bed as early as it is possible to do so and avoid a set-back from cold weather.

A series of experiments on the time of planting corn to obtain the maximum yield and the minimum amount of corn ear-worm injury has been carried on at Manhattan for the last six years. Corn planted on May 1 produced the largest yield, and injury due to corn ear-worm was least for the corn planted at that time.

THE NEBRASKA LIEN LAW.

To the American Breeder:—I saw in your paper of March 20, where a man had asked if there was any law to collect the service fees on mares that we bred in Nebraska and then shipped to Missouri. Now I am sending you the Nebraska Lien Law, which we think is a good one and will answer the question for him.—Warren Whitehead, Harlan County, Nebr.

The Nebraska Lien Law follows.—Ed.

Every owner, lessee, agent or manager of any stallion, jack or bull shall be entitled to, and have, a lien upon any mare and her colt or upon any cow and her calf served by any such stallion, jack or bull for the full amount of the reasonable or agreed value or price of such service. Every such owner, lessee, agent or manager of such stallion, jack or bull desiring to perfect a lien upon any mare and her colt, or upon any cow and her calf, shall at any time after breeding any such animal to any such male file with the County Clerk of the county a verified notice of lien describing such animal with reasonable certainty, giving the name of the owner and his place of residence if known, and the name and residence of the person having the possession of such animal, the location of such animal, the terms of payment for such service, the amount thereof, the name of the male, the date of the service, and the time or event when the same shall become due and payable and such other matters as to make the same more certain. Thereafter such lienor shall have a first lien upon such animal or animals described therein, and their offspring as soon as the same may be born, subject, however, to the lien of record of any prior mortgage in good faith.

Any owner of any stallion, jack or bull within the state may file with the County Clerk of any county therein on or before the 1st day of October of each year, a full and complete list of the mares or cows served by such male within such county during that year. Such list shall contain the name of and a brief description of all animals so served, the owners thereof, the terms on which each was bred, the amount of money due or to become due upon each, and the time when payment thereof becomes due, and it shall be verified by the owner of such stallion, jack or bull or his lawfully authorized agent

From the time of filing such lien upon any such mare or cow the lienor shall have the right to hold the same on such mare or cow and their offspring for a period of six months from and after the birth of such offspring, but if such lien shall not be foreclosed within that time the same shall expire, and be of no force or effect.

Every such lienor may foreclose such lien by delivering to any sheriff or constable a true copy of such lien certified by the clerk of the county, together with an affidavit of the lienor or any agent or attorney having knowledge of the facts, stating the amount due and unpaid on such lien with directions to such officer to foreclose such lien. Thereupon such officer shall seize such mare or cow and their or its offspring and sell the same in the manner provided by law for the sale of personal property on execution, and retain the principal and interest and expenses of such seizure and sale, and the overplus, if any, pay over to the owner of such mare or cow or deposit the same for him with the county clerk and make and file due return thereof with the County Clerk.

It shall be unlawful for any owner of any mare or cow or their or its offspring, or any persons having the possession of such mare or cow or their or its offspring upon which there is any lien of record in the county to sell or permanently remove the same from the county or state before said lien is paid; provided, such owner may remove the same to an adjoining county by first filing in such adjoining county a certified copy of such lien and notifying such lienor in writing of the exact location of such mare or cow and their or its offspring in such adjoining county.

Any person or persons knowingly or wilfully violating any of the provisions of this act, shall be punished by a fine of not less than twenty-five dollars ($25.00) nor more than fifty dollars ($50.00).

GOOD OKLAHOMA CONDITIONS.

To the American Breeder:—Woods County, Okla., has the best prospects for a wheat crop the county over it has ever had. Very little hail and no hard wind storms so far. Everything looks good. Real estate, except city property, on the boom. The Oklahoma colt crop was poor, but very few died of navel infection.—A. M. Eubank, Woods County, Okla.

THE NEW MEXICAN BREEDERS' LIEN LAW.

To the American Breeder:—I enclose copy of our stallion law which I got from the secretary of state, House Mill No. 107, passed about two years ago.—J. K. Hastie, Eddy Co., New Mex.

Be It Enacted by the Legislature of the State of New Mexico:

Sec. 1. That owners of stallions, jacks, bulls, boars and rams, which are kept for the purpose of standing same in this state for profit, shall have a lien upon the animal or animals bred by contract by such stallion, jack, bull, boar or ram, and the progeny of such stallion, jack, bull, boar or ram, for the period of nine months from the birth of such for the payment of fee or fees due for the services of such stallion, jack, bull, boar or ram, said lien to take preference over all other liens given after date of service by stallion, jack, bull, boar or ram; provided the owner of such stallion, jack, bull, boar or ram shall file in the office of the county clerk of the county in which service is had, a description of such animal or animals served and such progeny, with the approximate date of the birth of such progeny, within three months after the birth of such progeny. Such lien may be foreclosed as chattel mortgages in this state at any time after filing such description.

Sec. 2. It shall be unlawful for the owner of any mare, jennet, cow, sow or ewe served by any stallion, jack, bull, boar or ram as mentioned in section 1 of this act, to sell such animal or remove same from this state before the satisfaction of the lien created in said section, without having first obtained the written consent of the owner of said stallion, jack, bull, boar or ram, and such sale or removal shall constitute a misdemeanor and upon conviction thereof shall be punished by confinement in county jail not less than 30 nor more than 60 days, or by fine not to exceed $50.00.

Sec. 3. That the lien provided in section 1, of this act shall not take preference over subsequently acquired interest by sale or mortgage, provided such interest shall have been acquired before the lien statement described shall have been recorded.

AND OWNERS OF THE BEST MARES, TOO.

To the American Breeder:—You are certainly making the American Breeder a wonderfully interesting and instructive paper, and I hope that your mailing list includes every stallion owner in the state.—C. W. McCampbell, Secretary Kansas Live Stock Registry Board.

MISSOURI'S $2,500 SADDLE HORSE STAKE AGAIN.

The saddle horse, men and all lovers of the saddler, will be glad to hear that the directors of the Missouri State Fair have decided to offer the $2,500 saddle horse stake again this year. Last year's show was recognized over the nation as being the biggest ever held on the continent.

WHITEOAK STOCK FARM



American Bred Percheron Stallions and Mares.

The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.

A BRAND NEW IMPORTATION!

I was in France and Belgium all through May, making early, careful selections from the best stallions and mares to be found. These are now at my barns and ready for sale, along with some desirable American bred animals. It is a good time to buy.

LONZO McCLAIN & SONS, LIMA, OHIO.



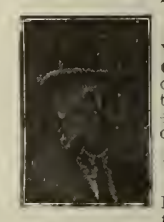
Oak Lawn Stock Farm

Breeds and imports champion draft stallions and mares; Percheron, Belgian and Shire. All stock for sale at reasonable prices. Come and see them before you buy.

GEORGE EGGERT, Newton, Iowa.

TWO PERCHERON FILLIES AND ONE STALLION COLT

For sale. All blacks; the fillies imported and the colt sired by my imported stallion, Glacis 55260 (71473). The fillies are two-year-olds; actual weights, 1,600 and 1,610 pounds; and will make magnificent high class mares. The colt is a show stallion prospect; a yearling filly out of the same mare, and not so good as a colt won first at the American Royal. I want you to come and see these, and the rest of my herd. **F. P. Burnap, 10 West Tenth St., Kansas City, Mo.**



FIFTY STALLIONS AND MARES.

$250 to $1,000 Each. Write for my illustrated **Circular telling why** I can save you money on the purchase of Percheron or Belgian stallion or mare.

A. W. GREEN, Middlefield, Ohio

R. R. Sta., E. Orwell, on Penna. Ry., between Ashtabula and Warren.

65 GRADE PERCHERON MARES 65

One to fifteen years old. Will sell reasonably as I am short of pasture. Several of the mares are in foal.

Wm P. GANNON, VALERIA, IOWA

CLYDESDALE HORSES

Stallions and mares of all ages for sale.

Also Shorthorn Cattle.

ALSO SHORTHORN CATTLE.
Route 2, Plainfield, Ill.

W. A. DeMerritt
Route 2, Plainfield, Ill.

ALL DRAFT BREEDS

(Percherons, Belgians, Shires)
Imported and Bred
Stallions Always on Hand.
Some good values in young stock now.

B. S. HARPER, La Rose, Ill.
30 Years in the Business.

SADDLE STALLION, PERCHERON AND 10 JACKS.

For sale. Registered saddle stallion by the Great Chester No. 10; sound and a good breeder. Two, two-year-old registered Percheron stallions and ten jacks from yearlings to five years old from 14½ to 16¼ hands high for sale at reasonable prices. Write your wants or come and see me.

W. L. Graham,
Mackville, Washington County, Ky.

IMPORTED AND HOME BRED STALLIONS AND MARES.
PERCHERONS, BELGIANS, SHIRES.

The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Percheron this year. See what we have before buying elsewhere. **Address Hart Bros. Osceola, Iowa.**

Car Load of Horses For Sale

Carload of geldings and some mares to sell. Draft crosses; weight 1,050 to 1,200 pounds. Some matched teams.

A. H. SENFF, Kearney, Wyoming

Valuable Percheron Stallion

AT A BARGAIN.

Inedit 80315 (82728); foaled 1908, imported 1911; black; weighs 1,950; 17¼ hands; excellent actor; sure foal getter; colts to show. Will send photograph on request.

I will make a sacrifice on this horse for immediate sale.

A. M. LARSON, Whiting, Ia.

$800 BUYS

A Percheron stallion and a mare in foal with colt by side. Sound. Registered in Percheron Society of America.

OLIVER GEARY, Keister, Pa.

FOR SALE---CHEAP

Six-year-old stud, weighing 2,100 pounds, and four of his stud colts; ages 1, 2, 2 and 1; all registered in the Percheron Society, or will trade for pure bred Percheron mares.

JULES G. RICHARDS, Struthers, Ohio.

ROYAL BELGIAN STALLIONS.

The best collection of Belgian draft stallions, 2 to 4 years old, that was ever imported to Texas, for sale at reasonable prices. Three blue ribbon winners, a champion and a sweepstake winner. Can be seen in Galveston, Houston and at my farm at Cedar Bayou. All first class breeders and well acclimated. **LEON VAN MELDERT, Cedar Bayou, Harris County, Tex.**

LOOK

PERCHERON STALLIONS

The good kind; two to 10 years old; $300 to $600; black and grays. To see is to buy.

Must sell all. Come at once.

J. SCHAUFELE, Colchester, Ill., Rte. 3.

DRAFT and TROTTING Stallions and Gelding FOR SALE

Bay stallion, 7 years old, registered; 1,000 pounds; fearless driver; been mile in 2:26. Sire Expedition, dam Camridge Queen; 2nd dam, 5 in list; 3rd dam, 10 in list. Photo.

Big handsome chestnut gelding, 8 years old; broken to perfection; 16 hands high; 1,200 pounds; been mile in 2:20; has two-minute brush; woman drives him.

Five Percheron stallions, 2 and 3 years old; reg. P. S. A. All priced right.

McClintock & Murchison

Galva, - - - - - Illinois

ADVERTISING BRIEFS.

Wm. M. Springer, Denver, Colo., is advertising four irrigated alfalfa ranches for sale, adjoining good range. Write him for full particulars.

A. H. Senff, Kearney, Wyo., has a carload of geldings and mares for sale, weighing from 1,050 to 1,200 pounds. Also some matched teams.

Leon Van Meldert, Cedar Bayou, Texas, is advertising a good collection of Belgian draft stallions for sale at reasonable prices. The ad appears in this issue.

McClintock & Murchison, Galva, Ill., are advertising draft and trotting stallions and one gelding for sale. Read the ad.

Jules G. Richards, Struthers, Ohio, has a six year old Percheron stallion for sale or will trade for pure bred Percheron mares.

A. M. Larson, Whiting, Iowa, is advertising a Percheron stallion, Inedit 80315, for sale, and will send photograph on request.

Lonzo McClain & Sons, Lima, Ohio, have just returned from France and Belgium with a carefully selected bunch of Belgian and Percheron stallions and mares, and would be pleased to show their horses to any one interested. They also have American bred horses for sale.

Wm. Hicks, West Chicago, Ill., has a standard bred horse for sale at a bargain, as he is in the dairy business and has not the time to care for him.

L. R. Dillon, Bixby, So. Dak., is advertising a 160-acre farm for sale at $12.50 per acre. Look this up.

The Breeders' Harness and Whip Company, Williamson Bldg., Kansas City, Mo., advertises two bargains in horseman's whips.

The J. W. Jenkins' Sons Music Co., Kansas City, Mo., is headquarters for all musical instruments. See their advertisement of Victrolas.

A FEW EQUINE PERSONALS.

At 22 years old the famous stallion, Symboleer, 2:09½, was sold at auction in the May sales in Chicago.

As an ideal for Standardbred horsemen, The Harvester, 2:01, is perhaps the most satisfactory among racing horses of note. In addition to being one of the most handsome and perfectly balanced animals of the breed, The Harvester is a horse with plenty of size, his weight in spring condition this year being given as 1,200 pounds.

Another example of production at advanced age is furnished by Mantau Maker. This mare at 23 years old has just dropped her eighteenth colt, and out of the 18, nine already have made records under 2:30.

Every race horse man will be interested in knowing that Anvil, 2:03¾, and Dudie Archdale, 2:03¼, are being gotten in shape again for the coming season's races. These two great trotters have already furnished some of the best speed contests the world has ever seen.

One of the most noteworthy sires and race horses that has kept in condition to an advanced age is Belsire, 2:18. Belsire is by Electioneer 125, and is one of prabably less than a half dozen living horses by the famous old foundation stallion. Belsire was at one time sold for $25,000 and now has 18 standard trotters and eight pacers to his credit.

People who are looking for speed by inheritance will want to keep track of a colt dropped by Marion Patch, 2:15¼. This mare is a sister to Dan Patch, 1:55¼, and her filly colt is sired by C. The Limit, 2:03¼.

The Chicago "Horseman" printed recently a list of items about old horses. Twenty animals received mention, beginning with a "barge horse" that died in England at 62 years, and ending with (the youngest) Senator N. 3795, 2:25, with three trotters in the list and still living at 33 years. Midway in the list was a horse that died in 1898 at the age of 43. It had served as a cavalry horse on both sides of the Civil War, having been captured from the Confederates during Early's raid on Washington. Among the trotters named were Maud S. that died at 38 and Nelly Bly that died at 36.

At a race meet down in Mississippi one of the starters was a bay gelding named Appendicitis. After the first heat its driver had to cut it out.

In the "Commencement Horse Show" held at the University of Missouri, Judge Mooers, Mrs. Mooers and Miss Mooers all drove competing entries in the same ring. Is this nepotism, monopoly or civil war?

LEARNED FROM THE "BREEDER" AFTER 25 YEARS' EXPERIENCE.

To the American Breeder:—I have been in the breeding business for the past 30 years; have had from one to two stallions each year and have used the saline treatment, followed with the soda treatment. Just from my own knowledge gained in making examination of mares brought to me to be bred, I have had very good success ever since I discovered what it would do for mares that were hard to fertilize. I have studied the anatomy of the horse all my life (nearly 60 years) and I wish to congratulate the Breeder for the good it has done for me in the past seven years, also the benefit it is to the public at large.—E. A. Rickard, Ashtabula County, Ohio.



ASTRAL KING 2805.

IN THE FAMOUS

SADDLE HORSE FUTURITIES

Thus far held at the Missouri State Fair and in competition with greatest remaining saddle horse sires of the continent

COLTS BY ASTRAL KING

Have won 23 of the 55 regular prizes awarded, or more than the get of any other half dozen stallions represented.

For any further information address

JAMES A. HOUCHIN, OWNER

JEFFERSON CITY, MO.

R. L. HARRIMAN, Bunceton, Mo.

The Fine Horse and Jack Auctioneer of the West

I sell more horses and jacks than all others. Terms always right: work always up to the highest standard.



FIRST COLT AT 22 YEARS.

To the American Breeder:—O. W. Cecil, one of the prosperous farmers of Kentucky, owns a 22-year-old mare which on the 14th of May foaled her first colt, notwithstanding she was bred regularly for 13 years. Her sire was an English coach horse, we believe. Mr. Cecil came to my barn June 6, 1913, and asked me to breed his mare to my best horse or jack. I told him they had been out that morning and were promised that evening, but I had a three-year-old horse, a grand colt of the famous Dan Patch, that I was breeding a few mares to, and would breed his mare to him. I cleaned her up and opened her up and bred her. She stood the first time.—J. L. Nickell, Wolfe County, Ky.

USES AMERICAN BREEDER HELPS AND COUNSEL.

To the American Breeder:—Enclosed please find money order for $1.50, for which mail to my address one of the American Breeder binders, also another 1914 stallion service record book as the one I have is very nearly full. This is my second season with the use of capsules and I am making good. Will say to the mare owners that are breeding small mares to ton stallions, have them capsuled; then you will know the stallion won't injure them.—Stanley R. Stager, Hall County, Neb.

INCREASED PROPORTION OF MULES.

A year ago (so the figures show) there were 47 horses for every ten mules in this, the United States. Eleven years ago there were 65 horses for every ten mules. This ten years' increase in the proportion of mules suggests the necessity of keeping an eye on the brood mare supply by which we mean, not just any kind of mares, but good mares, capable of producing mule or horse colts good enough to bring a profit over the cost of production.

STANDARD BRED STALLION

For Sale Right.

Dark chestnut, with star; 16 hands; trial record at 3 years, 2:23. He is a show horse, greatly admired and of the best disposition and training. Last season he got 37 live colts from 51 mares, and I collected more money than it will take to buy him, as the dairy business takes so much time I cannot look after him. Price $500.

WM. HICKS, R. 4, West Chicago, Ill.

REGISTERED MORGANS.

My Morgans are large; 15 to 16 hands and 1050 to 1300 pounds; have clean, heavy bone and possess all of the style and endurance for which the breed is noted.

Having bought Headlight Morgan to head a selected stud of The Admiral mares, The Admiral is now for sale. He is 15¾ hands high; weight 1250 pounds, and is the greatest all-round horse I know. I have 200 of his get on the place; part of them for sale.

RICHARD SELLMAN, Rochelle, Texas.

BLACK HAWK MORGANS.

For sale, or will exchange for young, small, unbroke range horses, six registered black stallions; two matured; 15½ hands; 1,200 pounds; two, three years old and two, two years.

E. F. BROWN, DERBY, IOWA.

R. F. D. No. 2.

EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Ponies for sale. W. H. Fulcomer, Belleville, Republic County, Kansas, Member American Shetland Pony Club.

Stallion For Service

Council Chimes 2:07½; pure bred license No. 1769.

A demonstrated speed sire; sire of Minnie Chimes 2:04½, and many others in standard time. Liberal terms on application. Write for pedigree and information.

I have a good French draft stallion and a big grey jack for sale.

DR. D. H. BIBENS, Larned, Kans.

WHITE ARABIANS FOR SALE

Eight head, six mares and 2 geldings, two to four years old; fair size; pink skin. Team of four year olds broken to work. Will sell worth the money. Write or come and see them.

HERMAN SHY, Dove, Ohio

TWO EXTRA GOOD HERD JACKS.

Can't Be Beat.

One 12 years old and never sired a jack that did not get 15 hands standard. The other is five years old and is a fine and large jack. Both well marked and registered. I will sell one cheap, as I do not need both. The old jack has got three-fourths of his colts—jack colts—here from one month old to three years old.

R. M. JOHNSON, BOLIVAR, MO.



300 HEAD of Colorado ralsed Jacks, Jennets, Mules and Brood Mares. All guaranteed. Prices right. **Lewis Swink & Son, Rocky Ford, Otero County, Colorado.**

Jacks For Private Sale

In order to reduce my jack stock I will sell at very much reduced prices for the next 60 days. I ralsed most all of my jack stock and can sell them cheaper than the man that deals in them. My jacks are all black with white points; in ages from 2 to 6 years old; in sizes up to 15¾ hands.

U. G. SAUNDERS, Flemingsburg, Ky.

EXTRA GOOD JACK

For Sale. Comlng 4 years old; 15¾ hands standard; weight around 1,100 pounds; black, with white points, nicely marked. Sired by Missouri King that sold for $2,000. Good enough to head anybody's herd of jennets. Come and see a good one; if you don't find him strictly good I will pay your expenses.

T. E. COLLINS. BELLEVILLE, KAS.

6 -JACKS--6
17-JENNETS-17

The jacks are three and four years old, and they and the jennets are all good stock. All black with mealy noses. I want to close them out this spring, and will make the prices rlght.

JOHN A. EDWARDS, Englewood, Kas.

Dark Gray Jack

For sale or trade. Eight years old; heavy bodied; good server on either mares or jennets. Will trade for good Morgan or saddle stallion, mares or colts. Photo and description if you mean business.

ADAM MATZ, CARMI, ILL.

What Breeders Say About Jacksorine

The Greatest Remedy Yet Discovered For All Sores on Jacks, Horses or Mules. Price $3.50 Per Can.

"I have used two cans of your Jacksorine and I regard it as being as good for jack sores as anything I have ever used. Have been in the jack business for over 30 years.—J. W. McCanse, Mt. Vernon, Mo."

"I have a fine jack which got one of his front legs in the pit, and he got to gnawing it and made a very bad sore which refused to heal for all remedies until I got a box of Jacksorine and cured it with half a box.—J. A. Johnson, Erick, Okla."

"I have tried your Jacksorine and find it the only medicine for jack sores. I can recommend it to any one who has jacks with sores on them.—Sam Molen, Frazer, Ky."

"I have used your Jacksorine, and after having a jack with five different sores on him, and trying every remedy that I could hear of, and giving him up as incurable, I got a box of your Jacksorine and cured him inside of 60 days. I consider it has no equal.—A. M. Perkins, Washington, Ind."

"I had a jack with a bad sore. I tried two veterinarians on him but they failed to do him any good. I saw Jacksorine advertised and sent and got a box and it cured him sound and well. I think Jacksorine is everything that it claims to be.—H. D. Power, Alto, Texas."

"Make my claim for Jacksorine as strong as you wish. I used it and found it O. K.—H. G. Belt, New Salem, Ohio."

"I have used several cans of Jacksorine and have found it to be the best thing I ever used for jack sores.—Wiley Clouston, Ness City, Kans."

"We have never used Jacksorine on jack stock, but have used it on a very bad case of grease heel on a stallion, which use gave very satisfactory results. We can recommend it as being a No. 1 ointment.—Jas. and W. R. Clelland, New Hampton, Mo."

"I have used Jacksorine for two seasons with good results. Will want another can soon.—O. A. Seaton, Jewell, Kans."

"I am using your Jacksorine with good success. Would recommend it to all as a reliable remedy for jack sores.—Cliff Hutton, Hennessey, Okla."

"I got a can of your Jacksorine which I used on a mare that had an old sore on her hip, caused from mad itch. It sure does the work and does it well.—J. C. Starkey, Marquard, Mo."

"I have used your Jacksorine to my entire satisfaction. I find it to be absolutely the best remedy for jack sores I ever used. Can heartily recommend it to anybody.—O. W. Layson, Hatton, Mo."

Under new management and partly as a result of greatly increased sales, the price of Jacksorine has been reduced from $5 to $3.50. Its **old high** standard of quality will be absolutely maintained.

Jacksorine undoubtedly is the best remedy for jack sores ever put out. It is put up in large self sealing containers from a scientific prescription and was long used with absolute success by the president of this company on his own stock. **Remember, the price is $3.50 per can, postpaid.** Remit by P. O. order or bank draft to

O. P. WILSON & CO., Lock Box 489, Kansas City, Mo.

Questions and Answers

(Continued from page 9.)

REPLY—Such a mare should be discontinued from service, given a run at grass and fed sufficient grain to cause her to hold her own in flesh and bred with capsule two days after going out of heat.

1142—EFFECTS OF A DISEASED MARE—I have some trouble with mares after I breed them throwing off matter. I have a three-year-old filly that I just bred once and in about four days she commenced to discharge thick matter and has been at that for three days. Do you think she could be in foal? I have a neighbor that has the same trouble. He has bred his mare four times. I have been treating mares when their temperature was 101, and have been waiting for some one else to ask this question but haven't seen it yet in print.—Kansas Subscriber.

REPLY—Your stallion has probably served a diseased mare which has been infected with the germ called "Barrenness in Mares." After serving such a diseased mare, perhaps this young mare followed soon after. The temperature is only one of the symptoms in making examinations. Mares having a temperature above 101½ in the uterus are usually very hard to fertilize.

1143 — CONTRACTED TENDON — This spring's mule colt walks on the toe of one front foot and has worn the wall down so that it is very lame. Will blistering help on such young animals, or is there a device to put the foot forward and upward?—Kansas Subscriber.

REPLY—You will very likely secure the quickest and most satisfactory results to have a good veterinarian sever the tendon that is contracted.

1144—A JACK'S FUTURE — Not being very good authority on jacks, I thought I would write you concerning my young jack, and what your opinion is as to how big he will be when grown. He is 15 hands high and weighs 900 pounds; was four years old the fourth of this month. It is my opinion he will widen out some, but I don't know about his height. Will he get any taller and what should he weigh, if he has proper care, when he is matured. This jack is big enough to throw 15½ to 16 hand mules out of 1,200 to 1,600 pound mares.—Montana Subscriber.

REPLY—Some jacks do not grow any more after they have reached the age of this jack; others grow much longer. It would be only a guess on our part to prophecy what this animal would develop into. He will no doubt get some heavier anyway. A jack 15 hands high should weigh around 1,000 pounds at maturity to be a well proportioned animal.

1145 — TUBERCULOSIS — Do horses and mules have tuberculosis? What are the symptoms? How long do they live with it? Would any other disease destroy the lungs? — Illinois Subscriber.

REPLY—Horses and mules rarely have tuberculosis; in fact, it is so rare that the attention of medical men is not often attracted to it. Yes, there are a number of diseases affecting the lungs of horses and mules.

1146 — DOUBTFUL FERTILIZATION —I had a mare brought to be bred on April 1st that raised a colt in 1912 from one of my stallions; in 1912 was bred to a Percheron; 1913 to same, but failed to get in foal. I found in the vagina about a pint of thick, yellow water; the cervix large enough to insert entire hand. I flushed this mare with soda and bred her in an hour. She returned the 21st day in heat. At this time the cervix was about half as large as at the first service. I bred her and on May 12th she refused and on May 25 appeared to be in heat. On examination I found the cervix closed. Please state what was the matter with the mare and if you think she is settled.—Missouri Subscriber.

REPLY—This mare might be in foal, but we doubt it very much. One treatment of soda is not likely to relieve the condition you describe. However, it is not advisable to break the cervix in this case as she might be with foal. Continue to try her with the stallion occasionally. About four months after fertilization has taken place, a rectal examination can be made to diagnose pregnancy.

1147—BLISTERS ON PENIS—Please tell me what is the matter with my Percheron stallion. Some time ago I noticed little sore places on his penis; they looked like a water blister and then to a dry sore. There is no puss. He is in fine condition but we are not breeding him now as I was afraid it might be contagious. Could it have come from an affected mare?—Pennsylvania Subscriber.

REPLY—It is quite likely your stallion has contracted an infectious disease known as genital horse pox, which was perhaps contracted from an infected mare. The disease usually runs its course in two or three weeks. During this period, however, there is danger if the stallion is used of conveying the disease to mares. You did the right thing to discontinue him from service.

1148—A DISEASED MARE—On May 21st I had a mare come to be bred. I found her in very bad condition. About four inches from the os at the opening of the vagina there was a lot of small bunches about the size of a pea and nearly a quart of thick, mattery substance, very sticky and streaked with blood. The cervix was covered around the neck with bunches the size of a pea and the end of mouth was full of pits or holes. Please state what was the matter with this mare and if she can be cleaned up. This mare was bred by a Percheron stallion six



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weeks ago and failed to fertilize, and he hair and underside of tail was cov-ered with large chunks of bloody, mat-ery discharge.—Missouri Subscriber.

REPLY—Send this mare to a good veterinarian and have him make a careful examination.

1140—BLOODY URINE—I am in the breeding business on a small scale; in my locality every spring some colts are lost. They have a complaint call-ed bloody urine. The discharge is mixed with blood. It begins at from wo to six days old, and in 24 to 48 hours they die. It is mostly horse mules that die, and it is very fatal. I never knew one to get well. Could you give any cure or preventative, or ell what is the cause?—Missouri Sub-scriber.

REPLY—Note our answers to sim-lar questions in these columns in this ssue.

1150—STALLION FAILS TO SETTLE—I am in trouble with my horse. I ear he is not fertile, and I do not now what to do. This is my first xperience with a stallion. My horse s the best in this part of the country, nd all the people are delighted be-ause of him. I have bred 35 mares, early all of them the second time. 'here will be 50 more but it seems seless. My brother in Nebraska says he horse has always gotten 60 per ent but he is not getting 20 per cent ow. Can you tell me what to do. I eed him good hay, timothy, alsike lover, ground corn, bran and a little il meal, about four quarts altogether, t a feed. Exercise 20 miles per week. -Minnesota Subscriber.

REPLY—Take the rectal tempera-ure of this horse daily. If it is bove 101 you had better get a vet-rinarian immediately. If his tem-erature seems to be normal and he s in good condition otherwise, limit im to one mare a day for a week or en days, selecting only clean, healthy ares, mares with colts by their side, possible. Get a microscope and est the semen every service. When he spermatozoa shows plenty of ctivity, and there are no dead sperm ells, he then can make nine services week, no two services closer than ight hours. The fact that your mares re coming back will only add to your ifficulty, if you are not careful. This ay be some local condition and ight be relieved in a short time. You ould put a day and night watch on is stallion to see if he is masturbat-g. It will be better to lose a few ares than to permanently ruin this orse. It may be that he is a new orse in the community and has at-acted the attention of a lot of shy reeding mares. This is very often he case.

1151—SCROTAL HERNIA — There a horse on the stand in this neigh-orhood that has scrotal hernia in one de. Could he be successfully operated and saved for a stallion? If he is ft as he is, would a rigid license law kely bar him from public service? e is a splendid individual.—Missouri ubscriber.

Such an animal can successfully be perated on so far as the hernia is oncerned and would probably con-nue satisfactorily as a breeder.

1152—THREE YEAR OLD SERVICE—I have a pure bred colt three years d the 30th day of April. Is one are a day too much for a horse of is age? I have been handling orses and jacks for seven years but have not handled a colt before. I have had several return mares to this colt, but we have not had a crop here for seven years and most of the people have no grain to feed their mares and work them. Besides I have a 12 year old horse and they have been coming back to him, too. I also have a jack but I think a horse at three years old with plenty of road work ought to stand one mare a day. Would like to have your advice.—Kansas Sub-scriber.

REPLY—If you wish to keep this colt in a fertile condition you will not make more than five services a week on an average. Three services a week will be safer.

1153—LEUCORRHOEA— I have a mare that has had the whites for two years. This spring I gave her the iodine treatment twice; one teaspoon-ful to gallon of water, but it did not cure her. I then increased the iodine to four teaspoonfuls to gallon of water, and she cleaned up nicely. My iodine must have been weak. I then followed the iodine treatment with the saline solution one week apart and she remained clean until the last treat-ment with the saline solution, when she became worse than ever before. I have boiled everything after each treatment and injected the solutions at 115 degrees. What did I do to cause this return. Her cervix was hard and firm when I gave the last saline solution.—Virginia Subscriber.

REPLY—You should not expect to clean up a case of two years' dura-tion with only a few irrigations. You are using the iodine too strong. Use it of the prescribed strength and con-tinue the irrigations for a few weeks depending on results, giving them twice a week.

1154—PURE BRED VS. FULL BLOOD—D. R. wants to know if it takes any more crosses for a pure bred than for a full blood. If so, how many, where they are both Percheron horses?—Mis-souri Subscriber.

REPLY—Pure bred and full blood have the same meaning. Registered also usually has the same meaning.

1155—ENLARGEMENTS IN THE VAGINA—Would like to ask what ails a mare that was bred last year and failed to get in foal. I run my hand in to see if I could tell what ailed her, and what I thought was bad shape on the inside in the large opening or basin, as I call it, and right next to bladder, I found five lumps, the larg-est of the five was as large as a ball —a good handful—and the smallest as large as a hulled walnut. Now are they tumors or what are they? What would you do about breeding her? I think the mouth of the womb is too open to retain and I don't think she can be bred only with a capsule. I don't think it advisable to breed her. Advise me what they are and what to do. The mare from outside appearance looks well, eats heartily, is in good flesh and hair looks good.—Missouri Subscriber.

REPLY—These enlargements are sometimes benign tumors but more often are induced by obstruction of certain ducts located in this region. It is very difficult to successfully re-move them. It might be worth while to irrigate this mare with hot saline solutions twice a week for two or three weeks and breed her with cap-sule two days after the close of the heat period.

1156—ABORTED—I have bred mares and they seemed to stand and been tried back and did not come in any more that season, and did not get in foal. Why is that?—Missouri Sub-scriber.

REPLY—Many such mares lose their colts and the owners never know that anything has happened. The writer has examined numerous mares that were safely with foal which never delivered colts and their own-ers never knew that they had aborted. There is another class of mares that are bred once and are never returned for further service. Every mare should be returned promptly for service on the 21st day after being bred and once a week for three weeks after that.

1157—STRING HALT — I have a thoroughbred saddle stallion that is string halted in both his hind legs. He has been that way for about three years. He has been standing in a barn. Is that the cause of it? Can you tell me what to do for it?—Mis-souri Subscriber.

REPLY—The exact cause of string halt is not positively known. Nothing can be recommended excepting a sur-gical operation, which consists of severing a small tendon near the hock. This operation benefits the majority of cases and gives complete relief in many.

1158—UMBILICAL HERNIA—Please tell me how to treat or operate on a colt for umbilical hernia. This colt is a mule 30 days old. I first noticed a slight enlargement around the cord which soon disappeared in a few days and then began to form just in front of the cord. Several people told me it would go away as the mule grew, but it is getting larger every day. At this time it is half as large as a man's head. If you can assist me in any way it will be greatly appreciated.—Texas Subscriber.

REPLY—Unless your are a veteri-narian you are not justified in under-taking an operation of this kind, but should employ a skilled surgeon who has made a special study of surgical cases of this character. We do not care to encourage our readers to un-dertake the treatment of cases that would likely result in the animal's death from lack of a proper under-standing of how the work should be performed.

1159—BREEDING QUESTIONS—How soon after giving the saline solution can a mare be bred or capsuled. I have been making the iodine solution with one teaspoonful of iodine to a gallon of water, as you recommend, but it does not color the water to a port wine shade, as you say it should be. Would you advise adding more than a teaspoonful in order to bring it up to the wine color? Our druggist says the iodine is full strength. I got two different bottles of it and mentioned it to him, and they both gave the light color. In your direc-tions you say one teaspoonful of iodine to a gallon of water, or enough iodine to bring the mixture up to the color of port wine. Please make this more plain, whether to increase the iodine more than a teaspoonful or let the color go light.—Nebraska Subscriber.

REPLY—It is well to wait five or six hours after using the saline solu-tion so as to give time for any excess of fluid that might remain in the uterus to be absorbed. In the hands of the majority of individuals the iodine solution made up with one tea-spoonful to a gallon of sterile water is strong enough. Again men of ex-perience may use it twice the strength in certain bad cases. It is best not to continue the stronger solution too long.

1160—HOLDING THE MARE—Would like to know if a person owning a stallion can collect service for colt if mare is bred to another stallion three weeks after the first stallion served her?—Iowa Subscriber.

REPLY—The owner of the stallion making the first service can probably collect unless the latter service was late enough to make it a clear case that the first service was not effect-ive. Three weeks is not long enough to decide this point in all cases. Where sires are changed it is usually best to change from a stallion to a jack or vice versa, then no complaint can be made after delivery. Quite frequently a mare is bred and later bred to one or more sires; sometimes several services, and give birth to the first service. A law might be of much benefit which would require a mare owner to remain with one sire until the season closed or until released by the original breeder. There are men in the business who will force a sec-ond service in order to get the busi-ness. There are others who do not know much about the breeding busi-ness, who are doing much serious damage.

1161—BLOODY URINE—I lost two mule colts. They apparently were all right when foaled and in ten to fif-teen hours they were weak and slug-gish. The urine was mostly blood and they were in great pain, and died. I cut into one and its bladder was full of blood. Can you tell me what to do for the next one, or can any-thing be done to correct it?—Montana Subscriber.

REPLY—These are usually cases due to infection through the navel shortly after birth, and is merely one form of so-called navel ill. Measures should be taken to prevent this dis-ease when it exists in a community by thoroughly cleaning up the premi-ses and preventing the infection by applying germicide agents to the ex-posed umbilical cord.

1162—DISEASED OVARIES—I have a mare eight years old—a twin. Will twins breed? This mare has been bred the last two or three years and won't settle. Have used the salt solution three times and then bred her. She is in good shape. I also have one mare six years old that don't seem to go out of heat at all. Is in good shape. Have also given her three treatments of the salt.—Kansas Sub-scriber.

REPLY—There is very little diffi-culty encountered with the breeding of twin horses. Your diagnosis as to whether these mares are clean or not may not be perfect unless you have had some special training. If these mares are both clean and normal in every way in the vagina and uterus, the ovaries should be examined. We are finding much ovarian trouble dur-ing the past two years; up to that time very little thought was given this subject from a horse breeding standpoint. Quite frequently this con-dition can be improved by massaging the ovaries.

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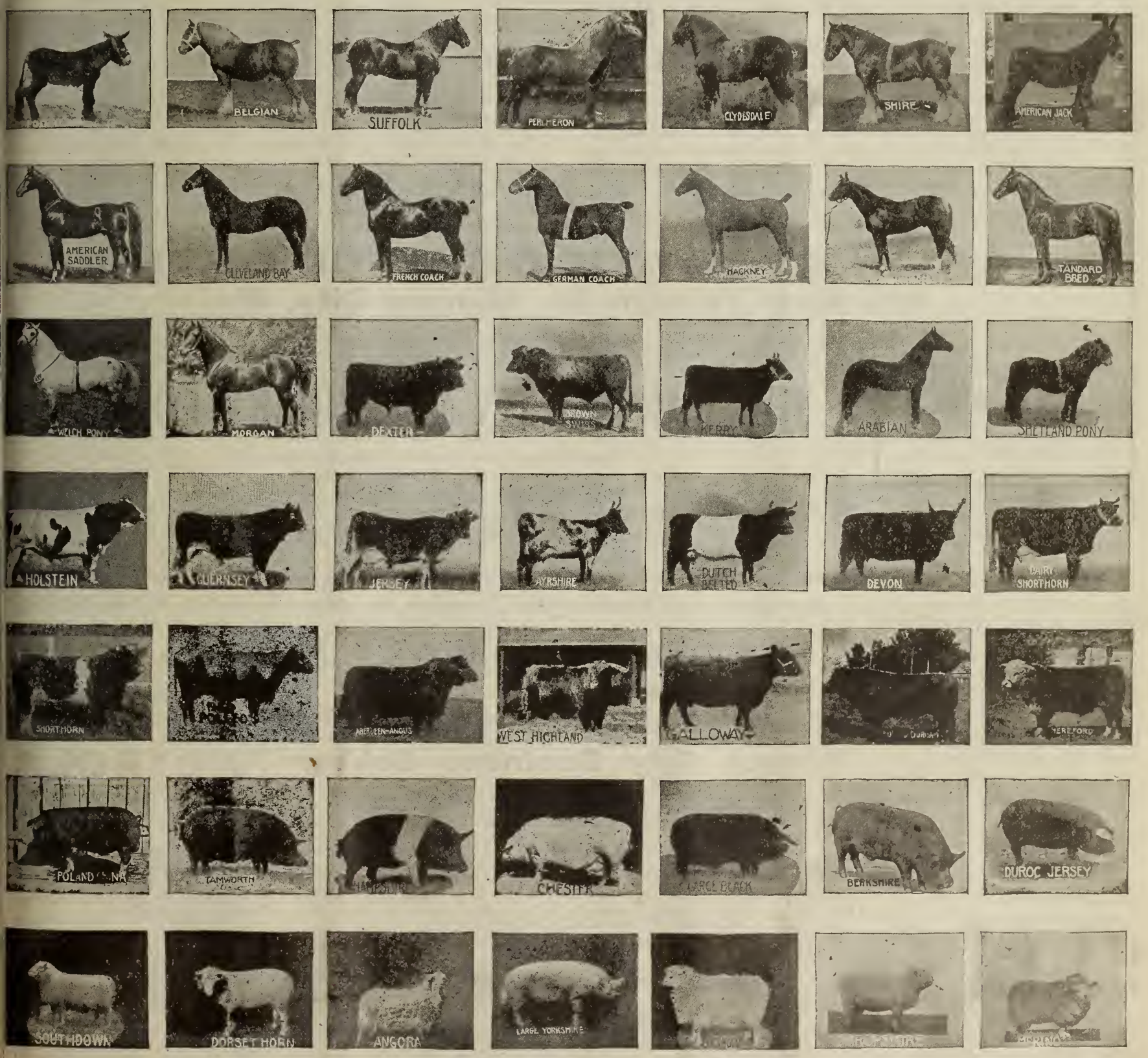
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SHY BREEDING STOCK.

The average individual does not realize what an enormous animal industry loss results in this country from irregular breeding conditions. A great portion of this loss could be prevented. Why more information on this subject has never been available we cannot understand. False modesty may have some bearing on the case. Not much information has been available in printed form. Agricultural colleges have not taught this subject to any great extent. One of the principal reasons that breeders are not more familiar with existing conditions is because the investigations giving authentic information have been very few and far between.

Female specialists have suggested ideas that have been very valuable to those who in recent years have taken up this work. Only a few professional men have given breeding subjects much thought. The result of this lack of information is more noticeable in horse breeding than with cattle. In the case of cows, if they do not breed after a few attempts they are sent to the slaughter house. Just recently a very fine four year old registered, high class cow was discovered in the feed yard being prepared for the butcher. This cow had been served several times without any results. After an examination was made, and one treatment given, the cow was fertilized and is now safely with calf. This cow is worth $300. Considerable time has been lost with the animal.

It is seldom necessary to condemn the young stock. Nearly all of them can be made producers with a little intelligent handling. Breeders generally must be made to understand that they must get more familiar with fertilization. The question arises, "Why are not the veterinarians better posted on this subject?" The answer is very simple. There has not been a sufficient demand made on them, to cause a search for wider knowledge. The average owner of a female animal of any kind usually hesitates to spend a dollar or two for such treatment. When such a demand becomes general, and the veterinary colleges find that this information is expected they will include more of this material in their regular courses. Breeders of today must study these problems and be prepared to know what to do with their breeding stock from a breeding standpoint. If the average breeder will forget the demands made upon him as a veterinarian, and pay more attention to strictly breeding subjects, he will progress more rapidly. Veterinary science and the new breeding profession are both necessary.

INFORMATION FROM SUBSCRIBERS WANTED.

The American Breeder wants to hear at once from every subscriber who has answered the advertisement of John Keefe, Eugene, Ore. (land) or of the "Reliable Squab Journal," Versailles, Mo., advertising for subscriptions. Write us full particulars, giving date of your letter or letters to the advertisers, and sending us the letters you received in return.

SELECTING TEACHERS WITH CHARACTER.

Arrangements are being made for the employment of teachers in various institutions at this time. The most important qualification for those seeking instructors should be character. It matters not whether it be for kindergarten or post-graduate instruction. The influence of the instructors lives for ages. "As the twig is bent, so is the tree inclined." The teacher frequently has a greater influence over the rising generation than the fathers and mothers. When we emphasize the great responsibility resting upon those who employ teachers, we do not apply it to the ordinary country school teacher any more than to those instructing in the "higher branches." American citizenship must be built on moral character as well as partly from better intellect.

A few years ago an instructor in one of the leading agricultural colleges was found instilling into the minds of his pupils, crooked methods in some of their practice. This has not proven profitable to that instructor or to the students. Some of the students at maturity resented this instruction and exposed his teachings. That instructor has experienced difficulties since that exposure. He has lost position after position when honorable men had the naming of men to fill them. The latest report from this individual is that he has taken up connection with a hog cholera serum company. There is no product which depends for its value, more absolutely upon the honesty of its manufacturer. Unless this individual has radically changed his standards we would not give much for the serum made and sold under his direction.

ANOTHER COBURN?

While papers all over the United States are publishing editorials of praise and farewell on the retirement of Secretary Coburn from the Kansas board of agriculture, the people of Kansas who appreciate the work the retiring secretary has done, are asking this question:

"Will we have another Coburn?"

In all probability they will not. Coburns are scarce. What other state has one? Yet many states have scanned their raw material and fought their politicians hoping to place at the head of a similar work, a man they could point to as another Coburn.

Mr. Coburn's successor is a fine man—universally liked by those who know him, painstaking and loyal to an unusual degree, and his greatest asset is the 20 years of training he has had under the man whom he now succeeds. But stepping from high school into a public office, which for 20 years has been his quiet sphere, how could he have the quality of soul of the man who, at a similar age, left behind him everything but the life which only by a chance was spared, to serve (and see his country tried) through civil war for what he thought was right.

How can a man whose ways since boyhood have lain on city streets, have the vision of one who saw the birth, and has followed the growth of this great western empire of agriculture, who, barehanded, has struggled with the problems of the farm when they were most difficult to overcome, and has lived to be a leader in their conquest. How can any man who has not thus known intimately the history of his state—her trials and triumphs and the fiber of her people—serve her with the same spirit as one who has.

This is not an attempt to eulogize Mr. Coburn or his work but a statement of some of the conditions which (apart from his education and natural abilities) have made his service something not likely to be duplicated soon. In justice to his predecessors it should be said that Secretary Simms, who originated the system of statistics still in use, was just as strong a man in his way. But Mr. Coburn's appreciation of proper publicity, and his zeal and ability in presenting Kansas facts in a way to get them such publicity as agricultural matters never before had known, were, and are, peculiarly his own, and who can say how much this awakening and maintaining of popular interest in the world's greatest business, has been and will yet be worth, not only to Kansas, but to all agriculture?

THE GOODS YOU SEE ADVERTISED

Are Usually More Reliable, as Well as More Economical, Than Those Not Advertised.

The quality of an advertised article cannot be lowered without causing a loss of the money spent to make it widely known. To protect his own investment the advertiser must maintain his standard of quality.

The output of a widely advertised article is so great that the economy of its production practically always leads to improvements here and there, making it better and more lasting than non-advertised goods of the same price.

Publicity, the greatest improver of political and social conditions, has the same beneficial effect on merchandising. No manufacturer, whose product is a reproach, dares spend a cent calling the public's attention to his firm, his goods, or his trademark.

INVESTIGATE THIS POINT BY GETTING THE CATALOGS AND PROPOSITIONS OF OUR ADVERTISERS—and always mention the American Breeder.

SCRUB SIRES.

After all the education the American farmer has received concerning the improvement of live stock, the scrub sires are yet in the majority. This is a remarkable condition. Why is this the case? Practically every intelligent breeder understands the value of improved blood.

Two sires may be standing in the same locality. The progeny from one sire may be worth as much at weaning time as the offspring from the other sire at maturity. This one fact alone should be sufficient evidence to convince all of the merit in improved blood. The owner of every good sire is in open competition with a lot of mongrels that should be castrated, for the best interests of their community. A lot of mongrel sires are producing stock which will be raised at an absolute loss. The great difficulty in the way of a triumph for better stock is the lack of plain printed information that will cause men who are mating their mares, to think.

Those who are interested in having better sires used to a greater extent should not fail to send in good big lists of mare owners for the special Mare Owner Editions which we have announced. It is in these issues, particularly, that we will show up these facts in such a way that mare owners will stop to think before they mate their mares. The proper time to prepare these lists is right now. Get them ready and send them in early. Ten cents a customer is very economical education. A ten dollar bill will send to 100 customers the American Breeder, beginning September 1 and lasting for five months. This will be the best and the cheapest advertising that any breeder ever did, and it will have a beneficial and lasting effect on the horse breeding business of your community.

STALLION CARETAKERS WHO NEED "INSPECTION."

An Iowa breeder writes that he has had an argument with his competitor. The competitor claims that the penis enters the uterus during the act of copulation, and that it is necessary to insert the entire hand into the uterus in order to thoroughly open the mare. All of our readers know absolutely what the proper method is. The great difficulty with many so called breeders is that they believe they have learned all there is to know about breeding.

One is astonished at the mis-information of some "experienced" men who believe they have learned all there is to learn. Every intelligent man should readily understand that it is not necessary to insert more than one or two fingers into the cervix during the opening process. This, however, is only one of the weak points in the knowledge of many breeders who do not study.

A short time ago a breeder was observed opening a mare after he had inserted his hand in a lard can. This can had been in use for the entire season—no attempt had been made to keep it clean. After inserting his hand into a diseased mare he would put his hand back into the lard can again. This was an excellent place to grow disease germs. This breeder thought he was doing something very smart. He did not realize that he was infecting nearly all of the mares that he opened. He did not realize that it was necessary to thoroughly wash the hands clean each and every time before the hand was inserted into another mare.

Much has been said concerning the stallion inspection laws but little has

been said about inspecting stallion owners or the ones who conduct the breeding business. A great deal more damage is done each year from ignorance on the part of the men handling stallions than has been brought about from the use of inferior sires. In all probability an effort will be made within a reasonable time to have laws enacted requiring care takers of stallions to pass an examination. This will disclose some very peculiar ideas.

We should like to have all our readers talk with their competitors concerning a law of this kind to see what they would think of it. Have about a dozen good, substantial questions ready and ask them the questions; make the last question, "Would you rather be at the top or the bottom, so far as knowledge is concerned, in horse breeding?"

SOME FREE INFORMATION.

To the American Breeder:—Having heard from a friend of the valuable information you give in the American Breeder, I thought I would write you and ask about my Percheron mare. She was bred in France, and when I purchased her she was in foal and raised me a fine mare colt. Since that time I have not been able to get her in foal. I have tried breeding her to several good horses, but cannot get her in foal. These stallions have good colts every year. This mare was four years old when she had the colt for me. Since that time this mare does not seem to horse right. When you try her with the horse she will fight and throw water, but does not seem to be horsing. She will do this any time you try her. If you hold her and breed her she will squeal. I have examined this mare's womb and it seems to be all right in every way that I can see. I work her all the time and you cannot see any signs of her horsing. I have tried her every day for a while, but it does not help any. This mare is never cross only when you try her with a horse. This will make the fourth year I have been trying to get her in foal. She is a fine imported mare. I am sending you 25 cents for any information you can give me on this line. If it is impossible for you to answer this (as I am not a subscriber) please send the 25 cents back.—Earl Koontz, Adeline, Ill.

Mr. Earl Koontz, Adeline, Ill.:

We are returning the 25 cents you sent us. Perhaps after you breed this mare through four more years you will then muster up enough courage to subscribe for the paper that has been recommended to you as giving valuable information. Have you stopped to realize how much you have lost by not raising a colt each year from that mare?

We do not answer questions by mail. We have made this plain many times. We will appreciate it if your friend will make this point clear to his customers. We answer subscribers' questions, and through the AMERICAN BREEDER only, for the benefit of ALL our readers and not for outsiders. We are always glad to receive questions from our subscribers to be answered through the American Breeder. We spend a great deal of time and money in making our answers to these questions valuable and reliable. In view of these facts, don't you think you are a little low in your estimation to an answer to your inquiry?

Yours truly,
AMERICAN BREEDER.
Kansas City, Mo., June 29, 1914.

FROM THE OWNER OF FIRST PRIZE BELGIAN.

To the American Breeder: — Received your last paper recently and in same note the awards of the Belgian Stallion Show. I want to thank the judges for their decision in placing my horse at the head of the class among so many high class individuals. This horse was the first prize three-year-old at the International in 1912. Am enclosing you post card taken recently of same horse to show you that he is positively a draft horse. Your paper (in my estimation) is making great strides toward a good stock paper and plenty of good information for any breeder of live stock.—Chas. A. Wentz, Wyandotte County, Ohio.

THE SUBSTITUTE COUNTRY PREACHER.

In many states and by many interests, an answer has been sought to the question—"What Is Wrong With Our Country Church Life?" A more careful diagnosis (of some localities, at least), would have been indicated, had the question read—"What Has Become of Our Country Church Life?" It is hardly right to blame the churches for a bad condition toward which we had already made a headlong start as far back as a generation ago.

Nobody thought of the remedy then; comparatively few realize what it is now. But the trouble with the country church (whether absent or present) is largely with the preacher, and the trouble with the country preacher was the way he got his education. Fifteen or twenty years' life (and work) on a farm and three to five years in a good agricultural college, or the equivalent of such an experience, ordinarily would be needed to fit a man for living up to the opportunities and responsibilities of a country congregation. Not that he need talk these matters from the pulpit—but perhaps only a fifteenth of any preacher's working hours are spent in the pulpit.

But we have no such preachers, you say; then how do we know that is the kind? Because the nearest approach to our ideal country preacher we now have is a right-hearted, competent "country farm helper or advisor"—and his training has been along the line indicated. The writer ("raised on a farm") remembers visits from a country preacher's sons who shudderingly referred to some young Shorthorn bulls as "fixins." The work mules were designated by same term, and a Poland China boar, or sows that had so far ignored the proprieties as to raise litters of pigs, were absolutely unmentionable. While their curiosities were doubtless aroused by the handling of farm crops they did not know clover hay from cauliflower by name. Thus (thirty years ago) were the sons of a country preacher being prepared to understand, and sympathize in, and help with, the affairs of those who should be the support, and at the same time the beneficiaries of the country church.

"But," someone may object, "these material things have nothing to do with the spiritual in a farmer's life." No spiritual co-operation ever preceded a condition of sympathy and understanding, and we submit the sample quoted above as mighty poor foundation for such a condition. Missionaries think it worth while to cross the ocean and learn the language of some "benighted" heathen in order to "get in touch with him" and sooner or later, if they get anywhere in their work they must learn to understand all his affairs and customs. If that is worth any church's while, how many thousand times more worth while it must be to get in touch with the world's greatest human power for good by learning "the language of the farm."

This the "county farm helper" learns first—or better, he starts with this and adds to it—a knowledge of the farmer's problems which makes him worthy of his title. And by helping solve the material problems, and clearing up the material worries and distress he brings the peace of mind, the "control of the situation," the opportunity to look around him, which makes the farmer a successful co-operator in the restoration of a healthy country church and social life. Nor is this work one of the field and barn alone. Its influence has earned the housekeepers more important response in many localities, for the "helpers," whether called "co-operators," "managers," "demonstrators" or what, have the states' agricultural colleges and the national department of agriculture at their call for every requirement they cannot meet alone. True, some may partially have failed—from lack of experience to teach them patience and their own limitations, or lack of capacity to assimilate criticism. In what work have failures not come from the same causes? But this work, practically just begun, and enlisting so far, only a few who claim to be more than raw recruits, has shown results which guarantee the soundness of the idea.

Who composed the religious outposts, which, through agriculture or other industry, first made civilization secure in every part of the world? They were the church men whose education included the knowledge their people required for providing their necessities and comforts. What better example (on a broad scale, it is true) could the country minister of today wish to follow, than the life of Dr. S. A. Knapp, the pioneer in farm demonstration work, in boys' agricultural club work and in farm community betterment. It has been said that the "New South"—in the sense that it is a better South in agriculture, in a cleaner country life and in a bright future for both, owes more to Dr. Knapp than to any other one man.

A BUSINESSLIKE, SUCCESSFUL BREEDER.

To the American Breeder:—Until a little over two years ago I had given about as much thought to the subject of breeding as the average mare owner. I bred one and two mares a year and generally had very good luck in getting colts. But I noticed that on an average only about one mare out of every four in the neighborhood raised a colt. I knew there was something wrong but I had not given a thought as to remedy or conditions.

About that time I bought an imported Percheron stallion and of course I knew I had to do different from what most men were doing or I would never come out on him. I purchased the best books I could find on the breeding subjects and began to study. Through the courtesy of a friend I heard of the American Breeder. I sent for a sample copy and as soon as I received it I saw that it covered the subject more thoroughly than anything I had ever found. Now while I was trying to enlighten myself I knew that it would not benefit me to the fullest extent unless I could impart some of the knowledge to the mare owners also. So when the Mare Owner Editions were announced I had them sent to as many as I could afford at the time, and it has helped me more than I can tell. It was the cheapest advertising I ever did.

I was the first one in this part of the country to use the capsule system and of course I had the same obstacles to overcome that any one does who advocates a new way. This is my second year with the capsules and already lots of men will have no other way, if possible. I have had good success with the barren mare treatment. There is one mare coming to my place for treatment whose owner is standing a horse for public service. He is a man who has handled horses all his life and never saw the inside of a mare until his first trip to my place this spring.

That is one great trouble, the majority of the stallion owners do not know any more about breeding than the average mare owner. What do you think of a man who will make two services a day regularly with a four-year-old colt, because a few of his patrons do not like the capsule system, and threaten to go somewhere else if he will not breed their mares the natural service? I have a mature stallion and make only one service a day, and that at 3:30 p. m. Whenever a man tries to induce me to break my rule for his special benefit, I tell him to be on hand at that time and if he is the only one on hand he can get a service, or if there are a dozen he can, and if his mare happens to be the cleanest and healthiest one, I will serve her, otherwise he can go where he can dictate to the stallioner how he shall breed. I have examined every mare that I have ever bred and I tell them I think I am in position to know how and when to breed better than the man who only breeds one or two mares a year. Outside of my own experience I tell them that I have the word of men who have put in a lifetime of study on this subject, and whenever they can show me that they know more about it than my instructors, or than I do myself, I am willing to breed their mares just any way they say. But until they can, I will use my own judgment.

I think that the subscriptions I have secured for the American Breeder have helped me more than anything I ever did. Wishing it all the success in the future that it justly deserves, I am H. B. Smith, Douglas County, Mo.

SAFEGUARDING LIVE STOCK EXHIBITS AT FAIRS.

Among the evidences that fairs and expositions are taking proper steps to safeguard the health of live stock exhibits we are glad to note the following rules concerning the hog show in the premium list of the Missouri State Fair:

1. Before any hogs are permitted to pass through the gates into the fair grounds their owner, or the person in charge, shall deliver to the director in charge, or the superintendent, an affidavit, stating that said hogs are free from all contagious diseases and have not been exposed to any contagious disease within 60 days.

2. In order to prevent hogs intended for exhibition at State Fair from contracting hog cholera or other contagious diseases from contaminated cars en route, the following precautions shall be taken by each exhibitor:

At the time of crating hogs for shipment to the fair thoroughly saturate each hog and its crate with a 2 per cent solution of some of the coal tar hog dips, or a solution of bluestone in the proportion of 1 oz. to 4 gallons of water.

3. As soon as possible after unloading at Sedalia and before passing into the grounds, each hog, its crate and bedding shall be disinfected under the supervision of the State Veterinarian, or his assistant.

4. No hog showing any signs of any disease will be admitted into the grounds.

5. Any hogs which are shipped to the fair in cars that have not been properly cleaned and disinfected, or which have been loaded through any railroad shipping pens, or which have been exposed to cholera in any other manner, must, in addition to proper disinfection, be injected with hog cholera serum before entering the grounds.

6. Every hog on the grounds shall be inspected repeatedly during the fair, and at least once every day. Any hog which shows any sign of being diseased in any way will be removed from the grounds and placed in quarantine.

7. In the event that any hog should develop symptoms of cholera while on the fair grounds, every hog on the grounds shall be submitted to an injection of hog cholera serum before being removed therefrom. An ample supply of serum, prepared by the Missouri Agricultural Experiment Station, will be on hand for use without expense to the exhibitors.

8. Exhibitors are earnestly advised to have their hogs treated with the hog cholera serum before they are started on the show circuit.

Dr. J. W. Connaway, Professor of Veterinary Science at the Missouri Agricultural College and Experiment Station, will conduct an educational demonstration of the methods used in preventing hog cholera with serum, and will be ready at any time to treat swine exhibited. This will be done free of charge.

To the American Breeder:—I think sending the Mare Owner Editions to my patrons a good thing. It enlightens them on breeding problems and the saving of colts that they never knew before. I think it increases my business and places a good, clean, moral paper before them.—Sidney H. Baughman, Ashland County, Ohio.

HORSE BREEDING

When two animals are mated and fertilization does not take place, there is a cause for failure. The average breeder continues the mating process regardless of what the difficulties may be. This is what we call "breeding in the dark." About three and a half natural services on an average, are required to fertilize one mare under the management of the average breeder. Those qualified to make examinations and correct deficiencies should be able to produce and fertilize, on an average, with one and one-half services. The individual who owns a high class stallion or jack standing with natural service only is the one who really needs more education, because his sire is limited to a comparatively few natural services. If he has among his list of mares 20 or 30 shy breeding mares that requires from two to five services each, one can readily see what a great drain this would be on the sire, with practically no results. These are all plain facts and any breeder can turn to his books and find the evidence for himself.

At the Graham Scientific Breeding School, mares both dead and alive are used in practical work, teaching the breeders how to find these defects and what to do for them. This is the only place in the world where this information can be obtained. This is a broad statement, but it is a fact nevertheless. Breeders from nearly every section of this and from several foreign countries have attended this school, and even those who were the farthest advanced now realize that it was a place of real education. Not a single individual has ever criticised its teachings. Some of the best veterinarians in the United States have attended this school and each of those is ready to recommend it to both breeders and veterinarians.

This is not a "wild cat" institution. It has long passed the experimental stage. The graduates from this school have proven that the teaching has great value. Actual results constitute the best recommendation that any institution ever had. The instructors are educated men. No other body of men can impart the same kind and amount of information, no matter where one cares to look. The instructors at this school are experts because they have received the proper education along with practical experience and actual investigations. They have at their command every known method of carrying on investigations—not guess work. And one of the most important features is that these instructors deliver their work in such plain language that any breeder can thoroughly understand it.

This institution is intended to benefit plain breeders whether or not they have had opportunities to receive other education. It is a place where breeders assemble for the purpose of bettering their condition. It is not a place for "smart Alecks." No one is allowed to even smile at a mistake made by another member of the class. These men work together like a band of brothers. They work to each other's interest. They help each other. Their time is devoted entirely to this particular work. They all stay at one hotel. In fact, they are together all the time during the school. Their minds are kept centered on this particular work for an entire week; nothing is allowed to interfere with the work. Every one who attends this school is expected to work.

The average breeder stays at home entirely too closely. He is entitled to a little recreation, not merely for the benefit of his health, but he should travel and find out what is going on in other sections of the country. The individual whose knowledge is limited to six miles square can never be expected to deliver the best results in any line. At the Breeding School, breeders will be met from all sections of the United States—some of the biggest as well as the smaller ones. One hears experiences of these men and this association has an actual money value. There are many things talked over at this school that never will appear in print.

Some breeders may be of the opinion that to attend an institution of this kind would mean great expense. But this is not the case. Board and room costs from $1.00 to $1.25 a day. Railroad fare is not very expensive, and there are no other expenses at the school except the tuition and board as everything else is furnished by the school. A few extra colts secured the first season will pay back all expenses, and the information will be useful for life. It is a pleasure to be looked upon as a leader in any profession. A diploma from the Graham Scientific Breeding School is good advertising. The average breeder who pays attention to the work can usually graduate in one term. The average breeder believes that the invitation is for the other fellow. Too many good, substantial men do not stop to think that they should have this information. If breeders generally would think about this they might be much better off in several ways. Remember—the expense is not great, but if you do your part there is certainty of good financial gain. It also means an improvement in your community, if you exert your influence thereafter.

Breeders who have just passed through a big season will know of a good number of mares that need a scientific examination. They would like to know why these mares have not been breeding. It will be a very easy matter to call the owners of these mares over the telephone; have them brought in and start the preparation of these mares for next spring. This next term—August 10 to 15—is the very best time to attend for those in a position to do so. They can lay their plans to an excellent advantage.

The Breeding School rooms are well ventilated and provided with electric fans, so that the students will be made just as comfortable as possible during the warm months. In fact, the August term is generally found to be an excellent time to take a vacation away from other activities. Don't forget the date and be on hand early Monday morning, August 10.

We have space for only these few recent letters from graduates, but hundreds of similar letters have been received and printed in previous announcements:

"My attendance at the Graham Scientific Breeding School, class of January, 1914, has taught me among many things, the importance and need of study, the employment of modern means and the eradication of faulty conditions. I cannot speak too highly of this school, its fine moral tone, the good fellowship and vast importance of the instructions to those who expect to become successful breeders. —Leonard C. McMurray, Glens Falls, N. Y."

"I attended the last term of the Graham Scientific Breeding School and must say that I never met a better or a cleaner class of men than attended the same term. Words cannot express the regard we all had for Professor Graham and his instructors. —John Holihan, Pingree, No. Dak."

"I am glad I took the time to go to Kansas City to attend the January term of the Scientific Breeding School. I had found out, by reading the American Breeder, that the barren mares and the shy breeders were a big proposition to me, as I wanted to protect my recorded mares as well as my stallions. I had learned in the past that a good healthy mare and a good healthy stallion when handled right would bring a good colt, and when a mare did not get in foal she was out of health in some shape, and that proper feeding and care, such as good oats and wheat bran, with good, bright hay, and keeping my horses out of cold rains, added to the number of colts I could raise. But we opened the mares at the Breeding School and saw the organs of these diseased mares. The lectures that followed on disease germs told how these germs have been transferred to the bitch, then to the Belgian Hare, then back to a mare again, to a certainty, and other instances at different stallion barns. We learned how to tell these mares, and also how to rest the stallion. In fact, every lecture was scientific, and a good one, given by research men. But most of all I was glad to meet men that cared more for the men and boys that were at the School than they did for horses and money.—A. W. Blue, Claypool, Ind.

—Advertising.

Making His Business Better

To The American Breeder:

Please find enclosed postoffice order for $12.00 and the names of 100 of my mare owners, to be used as follows:

100 Mare owner subscriptions	$10.00
My own 3-year subscription	1.00
One American Breeder binder	1.00

Yours truly,

Meridian, Idaho, Frank N. Taylor,
June 27, 1914.

Mr. Taylor is one of many who are helping us by sending in their orders early. Will you help too?

A Silo for Next Winter

By A. S. Neale, Lecturer on Dairy Husbandry, Kansas State Agricultural College.

One of the problems confronting many farmers at the present time is how to get a silo ready for use next winter. The majority of them wish to build something durable, which will not rot or blow down. Concrete is one of the favorite materials for silos of this sort. One of the questions of the average farmer is, How can I get a concrete silo without an excessive outlay of cash?

While many contractors are building silos of this sort throughout the state, according to the present outlook they will be unable to meet the demand for concrete silos during the coming season. Also when the farmer employs a contractor he must pay cash for the work, and consequently the immediate outlay for a silo is larger than some farmers are willing or able to make.

One of the best ways to obviate the difficulty of a large cash outlay and still secure a concrete silo is through the organization of a silo club. A number of these clubs are now being formed in Kansas, and every community has room for one. For example, through the efforts of P. H. Ross, county agricultural agent for Leavenworth county, Kans., four farmers in one part of that county recently became interested in organizing a silo-construction club. These four men secured the plans for the construction of forms from the Kansas State Agricultural College and also had a representative of the extension division of the college assist them a few days in getting started. With a little help of this sort they have been able to get along nicely with the work and are going to have first-class silos.

A solid concrete silo 16 by 36 will cost each club member $188.80, itemized as follows:

55 bbls. Cement @ $1.32	$72.60
22 tons sand @ 90c	19.80
Crushing 40 yds. of rock @ 50c	20.00
Woven wire for reinforcing	40.00
Ladder rods	2.40
Material for forms and scaffold lumber per Silo	15.00
Lumber for doors	7.00
Incidentals	4.00
Lumber for chute	8.00
Total	$188.80

Labor necessary for each silo is as follows:

Excavation four feet deep; Four men 1 day	4 days
Laying footing and flooring; Four men 1 day	4 days
Building wall; Four men ½ day each for 13 days	26 days
Labor of making forms, per silo; One man 1½ days	1½ days
Building chute and doors; Two men 1 day	2 days
Total labor	37½ days

As labor is traded, there is no outlay for this item.

Another silo club is found in Montgomery county, Kans., where E. J. Macy, county agricultural agent, has been active in promoting the work. This club consists of ten men (it is hoped to increase it to twenty) who bought a first-class steel form with an engine, concrete mixer and hoisting apparatus costing about $1,000. They intend to employ as foreman a good workman who will take entire charge of the work and go from farm to farm, building silos for the various club members. With the forms owned by this club, six feet of wall can be built a day, thus making it possible to complete a forty-foot silo in seven days from the time the foundation is laid. This club not only expects to build silos for its own members, but also for other farmers in the community, and these men will be able to secure first-class concrete silos at a less cost, including all labor, than that of constructing a first-class wood stave silo.

Live Stock, Hay and Grain Market Review

A poor time for marketing good horses and a good time for marketing poor horses. That seems to be the general conditions in the trade. Big demand and supply sources for both horses and mules are closed for the next few weeks. Only a few good to choice horses are coming and they are delivered on contracts, some to the army and others to construction outfits, but arrangements have been made for their disposal before they leave shipping points. It is wise for those who hold good horses not to take chances with an uncertain demand, and as much uncertainty in prices. General conditions are such that light supplies are far better than an increased movement. While practically nothing is doing in good classes, the plain and ordinary kinds are changing hands much on the basis of a regular "hoss" trade. A few are taken each day by scalpers, and mixed up with other arrivals and the whole lot offered as fresh stuff. Prevailing prices on current offerings of horses are about $50 to $150, a head. There is some buying of thin horses, but to enter that trade quality must be there. Indications are that feeding of both horses and mules will be larger this fall than last, but the bulk of the thin horses will be bought by feeders from September on and following the ending of the active farming season. Fall requirements should be large and those who have a few horses to sell would get better prices if the animals were given a short rest before being shown.

In early September eastern demand for good horses will begin again and a little later southern inquiry will pick up. Dealers say they expect prices then to be fully as good as they were in May, and if the feed situation remains good the supply will be below requirements.

Reports from range horse sales indicate a fair inquiry with average prices higher than in former years due to improved quality. A good many ordinary range horses will be handled through the various markets during July and August.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Horses—	
Drafters, 1700-pound extra quality.	$250@300
Drafters, good to choice	200@245
Drafters, fair to good	150@185
Chunks, good	150@180
Chunks, fair.	95@150
Southerners, good to choice	130@150
Southerners.	65 up
Mules—	
13½ to 14½ hands	$100@135
14½ to 15½ hands	130@165
15½ to 16 hands	160@210
16½ or better	200@265

Strength in Cattle Market.

June closed the cattle market at the highest level of the year for prime corn fat steers, but with a moderate decline for those that show grass sap. This is the season of the year when increasing receipts of grass fat cattle are due, but thus far they have been below normal supply. Fed cattle are also scarce, and instead of the usual June decline prices for the best cattle appreciated 15 to 35 cents. Perhaps the highest price ever paid for June grassers was received last week by an Emporia, Kansas, shipper, who sold some steers that had been held on wheat fields through the winter and grassed since April. They brought $8.40 a hundred pounds. The steers that show any primeness are bringing $9 to $9.45. Clinton County, Missouri, and Southeastern Nebraska are the principal western localities supplying such cattle. Chicago is receiving its best cattle from Iowa and Illinois. Practically all cattle that have had dry feed are bringing $8.25 up, and it begins to look like a $10 August market for the finished kinds. Most of the early grass fat cattle have been marketed from South Texas, and unless North Texas and Oklahoma begin marketing soon, river markets will have practically no cattle. Recent heavy rains in Kansas insure a late marketing season from that state. On the quarantine side steers the past week have sold at $5.50 to $8.35, the last named price being the high record for the year. The big droves of grassers brought $6.80 to $7.65.

While cattle have been selling well prices for beef have been advanced under an improved demand. Both cuts and carcass beef are up ½ to 2 cents a pound compared with the first of June.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.00@9.35
Good to choice steers	8.50@9.00
Fair to good steers	8.00@8.45
Common to fair steers	7.25@8.00
Meal fed, choice	8.25@8.75
Meal fed, common to fair	7.50@8.20
Quarantine steers, fed	8.00@8.35
Quarantine steers, grass fat.	5.75@7.75

Some Grass Cows Coming.

Only a few bunches of western range cows were received in June In former years killers have gathered in a large crop of cow loin in June at low prices, but this year the few cows offered brought $5.50 to $6.50 for good butcher grades, and $4 to $4.75 for "canners." Fed cows sold up to $7.50, and fed heifers as high as $9. The summer's run will not be large and killers will be woefully short on canning material. Veal calves have fluctuated 25 to 50 cents, but closed the month net unchanged.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice.	$7.00@7.50
Good to choice	6.25@6.95
Fair to good	5.50@6.20
Common to fair	4.85@5.50
Canners.	4.00@4.80
Heifers—	
Choice.	$8.50@9.00
Good to choice	8.00@8.45
Plain to fair	7.00@8.00
Common.	5.75@7.00
Veal calves.	6.50@9.75
Bulls.	5.00@7.25

Stocker Prices Unsettled.

Two weeks ago prices for stockers and feeders were at the low point of the season. In the next few days they regained the high position of the year and then turned down again though they are still above the low point two weeks ago. Most of the offerings have been plain and ordinary in quality and the movement appears to be the culling out process to get rid of the common kinds. Some countrymen have been unable to fill orders for choice stockers and feeders. Present indications are that the late summer and fall demand for thin western cattle will be enormous, and if crops hold up to present promises there will be more feed than cattle.

The following quotations are for the various grades of stock and feeding cattle:

Selected feeders	$ 7.60@ 7.85
Good to choice feeders	7.25@ 7.60
Fair to good feeders	6.85@ 7.20
Plain to fair feeders	6.35@ 6.80
Selected stockers.	7.50@ 7.85
Good to choice stockers	7.15@ 7.45
Plain to fair stockers	6.75@ 7.10
Stock calves.	6.85@ 8.00
Stock cows.	5.00@ 6.00
Stock heifers.	5.25@ 6.75
Milch cows.	60.00@110.00

Hogs Close at June's Top Prices.

Hogs sold better in the last half of June than in the early part of the month, and closed 15 to 20 cents higher with demand urgent owing to the moderate receipts. Packers tried hard to depress the market below $8, but maintained $7.80 to $8 quotations only one day and in the past two days they paid $8.20 to $8.45, the highest prices since the third week in May. Receipts now are beginning to show a good many old sows, and the July movement will increase as pigs have been weaned and farmers prefer to hold the pigs. Country reports indicate that pigs are unusually healthy, and while there is a large supply, they will not figure in market receipts before early winter. The bulk of the fed hogs have been marketed and it looks as though receipts of hogs for the next four months will be unusually small.

The following quotations are for hogs:

Choice, 250@300 lbs	$8.35@8.45
Choice, 200@245 lbs	8.30@8.45
Medium weight	8.25@8.45
Light weight.	8.10@8.42½
Common to fair	6.75@8.10
Stags.	6.25@8.35
Boars.	4.75@7.50

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week
Monday.	$8.10@8.40	$8.00@8.22½
Tuesday.	8.00@8.32½	8.00@8.27½
Wednesday.	8.05@8.35	8.00@8.27½
Thursday.	8.05@8.35	8.00@8.32½
Friday.	8.10@8.40	8.10@8.35
Saturday.	8.10@8.40	8.00@8.30
Mon., Jun. 29.	8.15@8.45	.....
Tues., Jun. 30.	8.20@8.47½	.....

Sheep Prices Receding.

Lamb prices held up to $9 to the close of June, making average prices the highest ever recorded in the sixth month of the year. In 1910 spring lambs in June sold as high as $9.85, but they closed the month under $8.50. The top price for lambs last month was $9.50. Sheep prices were some lower, but demand is good, and indicated supplies for July are not large. The big movement of stock and feeding sheep will not begin before the middle of August. A high price level is forecasted as western flock masters have fewer to sell than last year and the grass is in such excellent condition that an unusually large per cent will be available for killers. Choice fat spring lambs are quoted at $8.50 to $9 and sheep, $4.50 to $5.50.

June Receipts of Live Stock.

June receipts of live stock except sheep were the smallest reported in the sixth month of the year in a number of years past. The fine western markets received only 464,000 cattle, 1,330,000 hogs, and 706,000 sheep, which was a decrease of 86,000 cattle, 177,000 hogs and 68,000 sheep, compared with June, 1913. In the first six months this year the decrease in cattle was 370,000, hogs 727,000, and an increase of 591,000 sheep. The six months' supply of hogs this year was 8,036,000 or 2¼ millions less than the record breaking run in the first half of 1908.



THE COW IN THE LEFT FOREGROUND WAS GOT WITH THE AID OF AN IMPREGNATOR, AFTER REPEATED FAILURES TO GET HER DAM IN CALF BY NATURAL METHODS. (HERD OF W. P. HODGDEN, ENID, OKLA.)

Wheat On New Crop Basis.

Old wheat the third week in June sold up to $1 a bushel, and the following week new wheat began pouring in on the market. Now new wheat is selling under 78 cents, and country bed prices are below 72 cents a bushel. The biggest winter wheat crop ever harvested is in the shock and July receipts are expected to be immense. Corn prices are lower, but supply small. Oats are offered in increasing supply and prices are sagging.

New Wheat—		
No. 2 hard.	72½	@77½
No. 3 hard.	71	@76
No. 2 red.	71	@72
No. 3 red.	70	@71½
Corn—		
No. 2 white.	72	@72½
No. 3 white.	70	@71
No. 2 mixed.	66	@67
No. 3 mixed.	65	@66
Oats—		
No. 2 white.	35	@35½
No. 2 mixed.	32½	@34
Rye.	62	
Chop.	1.28	
Bran.	82	
Barley.	47	@50
Shorts.	1.08	@1.15

Hay Prices Lower.

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Sold on 15 days trial Guaranteed to move more dirt with less draft than any machine made. Two levers, one tilts the blade any angle, one raises and lowers the rear end of blade, leaving the dirt where you want it, crowning road bed smooth.



Made in 3 sizes
6-ft blade, 200 lbs
10-ft " 300 "
12-ft weighs 320 lbs
16-ft " 360 "

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RED OAK, IOWA

CORN HARVESTER with binder attachment, cuts and throws in piles on harvester or winrows. Man and horse cut and shock equal to a corn binder Sold in every state Price only $20 00 with fodder binder. J. D. Borne, Haswell Colo., writes: **"Your corn harvester is all you claim for it; cut, tied and shocked 65 acres milo, cane and corn last year."** Testimonials and catalog free, showing pictures of harvester. Address **PROCESS MFG. CO., Salina, Kans.**

ful and tame hay moving more freely than for some time past prices are lower. Demand is limited as there is practically no shipping inquiry.

Quotations are as follows: Alfalfa new, choice, $13.50@14; No. 1, $12@13; standard, $10@12; No. 2, $7.50@9.50; No. 3, $5.50@7; prairie choice, new, $13.50@14; No. 1, $12@13; No. 2, $10@11.50; No. 3, $6.50@9.50; timothy choice, $16@16.50; No. 1, $14.50@15.50; No. 2, $12.50@14; No. 3, $9@12; clover mixed, choice, $15.50@16; No. 1, $14@15; clover, choice, $10@11.50; No. 1, $8.50@9.50; straw, $5@6; packing hay, $5@6.

NEW QUARANTINE REGULATIONS FACILITATE INTERSTATE TRANSPORTATION OF CATTLE AND HOGS.

New regulations governing the interstate movement of live stock became effective July 1, 1914. These changes are designed by the Department of Agriculture to facilitate the movement of live stock from quarantined areas or from public stockyards. The new regulations, which are known as B. A. I. (Bureau of Animal Industry) Order 210, superseding B. A. I. Order 143, deal with the shipment of cattle from tick-infected areas, with the movement of swine from public stockyards and with the dipping of cattle and sheep for scabies.

Hereafter cattle that have been dipped once under State or Federal supervision may be shipped from an area quarantined for ticks to a market center where there are proper dipping facilities and the Department of Agriculture maintains an inspector. After a second dipping there under his supervision the cattle may be sold for any purpose. Hitherto it has been necessary in times of drought for cattle owners in quarantined areas to slaughter their stock or sell it for slaughter for whatever it would bring. The resulting loss will, it is hoped, be done away with under the new regulation.

The provision permitting, under certain strict conditions, the transportation of hogs from public stockyards into interstate commerce has been made possible by the discovery by government scientists of a serum which renders swine immune to hog cholera. Hitherto all stockyards have been considered as infected with this disease. Now, however, it is considered safe to permit the shipment of hogs which have been treated with the serum and which show no symptoms of suffering from any form of disease. As a result of this it is expected that thousands of light weight hogs will be sent from the stockyards to the country for feeding and fattening and that the country's total production of pork will be greatly increased thereby.

The new regulations also withdraw all permission for the use of nicotine solutions, coal-tar creosote, and cresol preparations in the official dipping of cattle and sheep for scabies. This step has been made necessary by the difficulty experienced in keeping baths of this nature at a strength sufficient to eliminate all danger of disease without having them so strong as to be injurious to the animals themselves. The department, therefore, decided to insist upon a field test of the strength of all solutions used for dipping. A practical field test for this purpose is available in the case of the sulphid sulphur used in lime in sulphur baths for scabies, and for arsenious oxide in arsenical dips for cattle tick. Official dipping, therefore, will hereafter be confined to the lime-and-sulphur and arsenic baths.

LIKES HOG BREEDING LESSONS.

To the American Breeder:—I like the hog breeding lessons in the American Breeder very much. They are very practical and furnish a lot of good information to hog breeders and farmers. When our hog feeding experiment is completed I will see that you receive a report of it.—W. L. Blizzard, Kansas State Agricultural College, Animal Husbandry Dept.

FARM PRODUCT PRICES, THIS, AND PAST YEARS.

The average price to producers of the United States, of important products on June 1, and the average of the past five years on June 1, is shown by the following table put out by the U. S. Department of Agriculture:

CROP.	1914.	5-yr.Ave.
Corn, bu.	$ 750.00	$ 679.00
Wheat, bu.	844.30	986.00
Oats, bu.	400.00	453.00
Barley, bu.	491.00	681.00
Rye, bu.	644.00	768.00
Buckwheat, bu.	790.00	766.00
Flax, bu.	1,368.00	1,797.00
Hay, tons	12.34	12.90
Potatoes, bu.	713.00	747.00
Cotton, lb.	124.00	123.00
Butter, lb.	228.00	234.00
Chickens, lb.	125.00	115.00
Eggs, doz.	173.00	170.00

The following figures are prices paid producers of the United States on May 15, 1914, and the average of the preceding four years on May 15:

PRODUCTS.	1914.	4-yr.Av.
Hogs, 100 lbs.	$ 7.60	$ 7.14
Beef cattle, 100 lbs.	6.33	5.30
Veal calves, 100 lbs.	7.59	6.34
Sheep, 100 lbs.	4.87	4.99
Lambs, 100 lbs.	6.49	6.46
Milch cows, each	59.85	46.84
Horses, each.	138.70	145.87
Wool, unwashed, lbs.	.172	.179
Honey, comb, lbs.	.137	.136
Honey, extract, lbs.	.110	.122
Clover seed, bu.	7.87	9.87
Timothy seed, bu.	2.38	4.72
Alfalfa seed, bu.	6.77	....
Broom corn, ton.	84.99	104.26
Cotton seed, ton.	23.56	22.18
Cabbages, 100 lbs.	2.05	2.18
Onions, bu.	1.53	1.24
Beans, bu.	2.31	2.26
Sweet potatoes, bu.	.93	.99

THE MINNESOTA FLY TRAP.

The Minnesota Agricultural Experiment Station recently made a successful and economical modification of the old-fashioned fly catcher on the principle of the Hodge Fly Trap. It was twenty-four inches long, twelve inches high and eight inches wide. In tests it caught seventeen hundred flies in a day at the college dairy barn and twelve thousand on the back porch of a dwelling near a stable.

This trap can be made for about forty-five cents by anyone fairly skillful with tools. The flies collect in the upper part and may be killed by immersing that part in hot water or by pouring boiling water over it. These dead flies may be removed, the bait renewed, and the trap reset. Illustrations of this fly trap and full directions for making it can be secured in circular form by addressing F. L. Washburn, Entomologist, University Farm, St. Paul. Parties living outside the state should enclose a two-cent stamp when writing.

FIGURES ON THE PIG CROP.

From reports secured throughout Kansas City territory, and representing 185 breeders of pure bred hogs, R. F. Howard, manager of the live stock department of the Capper publications, has secured the following interesting figures:

Fifteen litters is the average size of the spring pig crop for those actively in the business, the 185 breeders reported 2,422 litters farrowed and 378 sows to farrow. From the 2,422 litters farrowed 15,213 pigs were saved. An average of nearly 6.3 pigs per litter. The average number of pigs, per litter, reported saved was as follows (by breeds):

	Pigs.
104 Poland China breeders	6.4
49 Duroc Jersey breeders	5.9
16 Chester White breeders	6.8
9 Hampshire breeders	6.5
7 Berkshire breeders	6.9

Mr. Howard says his figures do not indicate better than three-fourths of a "pig crop."

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"My hogs have done extremely well since I started to feed SAL-VET to them. I have quite a bunch of pigs to which I am also feeding SAL-VET; have never had pigs do any better since I have been in the business."—GEO. HACKELROTH, Forest Green, Mo.

"Four weeks ago, just before I received my SAL-VET, I offered to sell my hogs for $25.00, but could not do so. Since feeding SAL-VET they have passed many worms, some of them ten inches long, and they made such gains that I would not sell them now for $150.00."—DAN. MacALONEY, Tenney, Minn.



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I Take All the Risk Just fill out the coupon—tell me how many head of stock you have, and I'll promptly ship you enough SAL-VET to last them 60 days. You simply pay the freight on arrival—feed it as directed and at the end of 60 days report results; then if SAL-VET has not done all I claim, I'll cancel the charge—you won't owe me a cent. Address

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Ship me enough SAL-VET to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days and at that time pay for it if it does what you claim. If it does not you are to cancel the charge.

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P.O. .....
Shipping Sta. .....State .....
No. of Sheep .....
Hogs .....
Cattle .....
Horses .....

A Department For Women

ARSENIC FOUND IN JELLY AND CANDY.

According to a recent announcement of the United States Department of Agriculture, the Williams Bros. Company of Detroit, Mich.. has been fined $100 for sending four brands of adulterated jelly into Missouri. One brand contained 7 parts of arsenic per million. Two of the brands contained 8 parts, and the fourth, 20 parts per million, which might render the jelly injurious to health.

The Catawba Candy Company of Sandusky, Ohio, was also fined $50 and costs for sending into North Carolina and Illinois quantities of "Italian Cream," and into Oklahoma a quantity of "Iced Squares," all of which contained arsenic in either the candy or coating, or both. Leo Benjamin of New York City, according to the announcement, was fined $50 for shipping into Pennsylvania "Chocolate Cremolin" which contained arsenic. It also contained another mineral substance, a crude oxid of iron, which acted both as a color and a cocoa substitute. The label stated that: "This Cremolin contains powdered cocoa, and a little harmless coloring."

The Pan Chemical Company of New York City was fined $50 for shipping a quantity of adulterated cream tartar into the state of Washington. It contained lead, a poisonous ingredient, in the amount of 62 parts per million, which might render is injurious to health.

The Sen-Sen Chiclet Company, a corporation organized under the laws of Maine, with a factory at Salem, Ohio, was fined $25 and costs for shipping misbranded chewing gum from Ohio into Illinois. The gum bore a label containing the words "Jumbo Pepsin Gum." Analysis showed that the gum contained no pepsin.

The shipment of adulterated and misbranded mincemeat in interstate commerce has brought three fines of $25 each and costs to the W. H. Marvin Company, Urbana, Ohio. The "mincemeat" contained nothing more than a trace of meat, there being 0.1 per cent of meat in two of the shipments, and 0.2 per cent in the third. This was not considered sufficient to comply with the federal law. The labels on the shipments giving the composite articles of the "mincemeat" mentioned meat first.

Short weight of peanut butter brought a fine of $25 and costs to Julius Koehler (the Royal Peanut Butter Company) of Cleveland, Ohio, because the article was shipped in interstate commerce. Ten packages showed an average shortage of over 13 per cent in weight. Another Ohio company (of Toledo), the Ohio Spice and Extract Company, was fined $25 and costs for shipping adulterated and misbranded mace into Missouri.

Others against whom convictions were secured were: Henry M. Boggs, Fullerton, Ky., milk adulteration; Alexander A. Walter and Alfred F. Walter, Albany, N. Y., potato chips misbranding; the John Boyle Company, Baltimore, Md., canned peas misbranding; Sumner G. Berry, Ashley, Ill., condensed milk adulteration and misbranding; Charles W. Shaw Company, Baltimore, Md., jelly red color adulteration; Charles B. Lyon & Bro., St. Paul, Minn, gum orange shellac adulteration; William Numsen & Sons, Baltimore, Md., jam adulteration and misbranding; Charles W. Shaw Company, Baltimore, Md., leavener adulteration; the Myers & Hicks Company, Baltimore, Md., baking powder adulteration.

PATTERNS FOR WOMEN AND CHILDREN.

SPECIAL ANNOUNCEMENT. We will forward, on receipt of 5c the Summer number of the Home Dressmaker, illustrating the latest embroidery designs, as well as hundreds of designs of garments for Misses, Women and Children, and containing two pages of hints on Home Dressmaking.

9986. Ladies' House Dress. Cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5¼ yards of 44-inch material for a 38-inch size. The skirt measures 1¾ yards at the lower edge. Price, 10c.

9970. Ladies' Apron. Cut in 3 sizes: Small medium and large. It requires 3½ yards of 36-inch material for a medium size. Price, 10c.



9606. Girls' One-Piece Apron. Cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 2⅜ yards of 27-inch material for an 8-year size. Price, 10c.

9983. Girls' Dress. Cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3¼ yards of 36-inch material for an 8-year size. Price, 10c.

9982. Dress with Over Blouse for Misses and Small Women. Cut in 4 sizes: 14, 16, 17 and 18 years. It requires 5½ yards of 27-inch material with 2¼ yds. for the underwaist, for a 16-year size. The skirt measures about 1¼ yards at the lower edge. Price, 10c.

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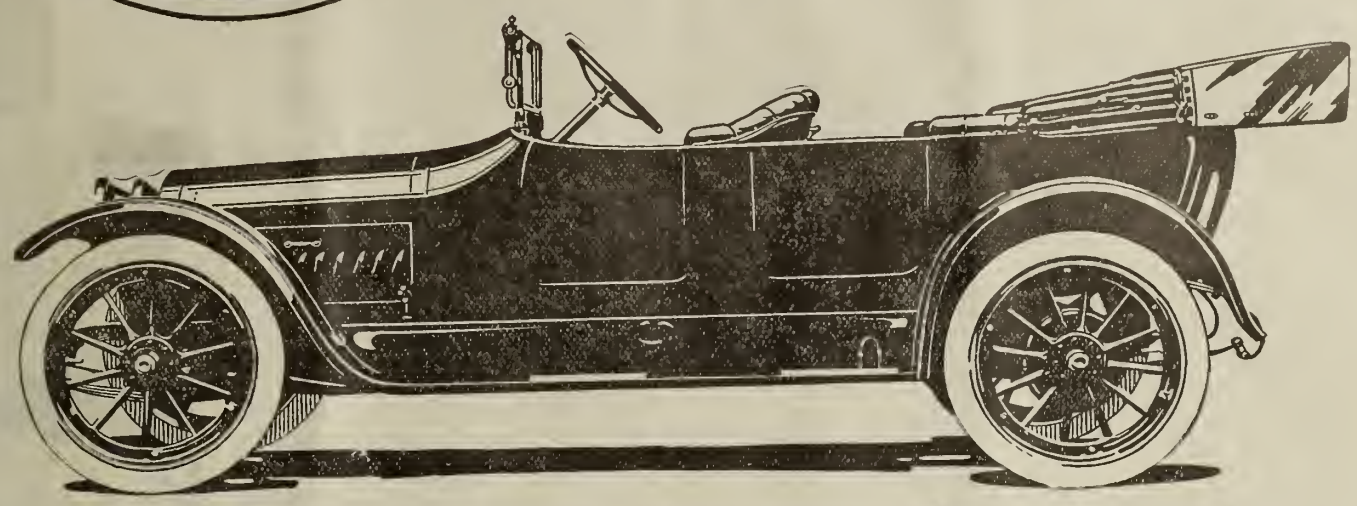
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instead, to take account of its toll in non-productive, premature old age. Conservation of physical strength and health is conservation of earning power — a genuine production of wealth.—Josephine T. Berry, University of Minnesota.

TIME TO CUT SWEET CLOVER FOR HAY.

To the American Breeder: — The time to cut sweet clover for hay will depend largely upon whether the crop is in its first or second year of growth. Generally speaking only one crop can be obtained the first year, and this should not be cut until the crown sprouts begin to show. This cutting may be close as the plant will have sufficient time to obtain a certain amount of growth ere the cold weather arrives and thus be able to withstand the winter.

During the second year of growth two or three crops of hay may be obtained if the proper precautions are exercised. The first cutting should be made just previous to the time that the plant begins to bloom and should be done so as to leave a few branches and leaves on each plant. If cut close at this time the majority of the plants will be killed. The second cutting should be done in exactly the same manner as the first, while the third and last cutting may be made close to the ground.

It is somewhat difficult to say just when the second and third cuttings should be made owing to the variation in the plant growth but as a rule the crop should be cut sufficiently early in order to avoid coarse and woody stems.—James D. Marshall, Colorado Agricultural College.

Questions and Answers

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

Sign Your Name and Address to all Questions.

1163—ALFALFA OR CLOVER FOR BROOD MARES—I am told mares are hard to get with foal when running on alfalfa or clover. Is this a fact or somebody's imagination.—Montana Subscriber.

REPLY.—A great many breeders contend that mares on alfalfa or clover pasture are hard to fertilize. Where so many breeders make this same report there must be something to it. We do not know just why this should be. On the other hand, there are just as many or more breeders who contend that this kind of pasture is just as good or better than any other kind for brood mares. Either clover or alfalfa are excellent forage. Mares may eat entirely too much of this material for their own good. If the amount could be regulated we cannot understand why it should be serious. Alfalfa, especially, either pasture or hay, should be limited, as a rule. One of the great problems of breeding mares is that the mare owners wish to give the mares a rest after being bred and turn them in the pasture. The change in the digestive tract also affects the generative organs. Breeding stock should not have any abrupt change, for the best results.

1164—TOO MUCH SERVICE—I have a pure bred Percheron stallion; nine years old, which has always been sure and is getting all he can do. I breed him to two mares one day and three the next, when we have them. I commenced the 15th of April to breed him but he does not settle but a few of them. I bred the first mare the 14th of April. His penis was foul with dry scales on it. He was very rank and served her strong, but the next morning his sheath was swollen about half the size of a man's head. We bathed it in warm water, but it did not go down for about four days, and one of his testicles was swollen. I got a veterinarian and he rubbed on some kind of a liniment and said it would go down, but it did not until I bathed it in wormwood and vinegar, and now when he stands in the barn a day one side of the sheath will thicken a little. Was there anything about the service that would hurt him as a sire? He has been walked about 40 miles a week and is in nice condition and very active; is always ready and serves good.—New York Subscriber.

REPLY.—We do not wonder that you are complaining about the failure of your stallion to settle his mares when you state that you breed him to two or three a day. Why breed a stallion in the filthy state you describe when a little labor on your part would have made things a little more presentable. Clean up and keep clean. As a rule, the stallion owner is the one who objects to putting his animal on an unclean mare, but here is a case where a flat refusal on the part of the mare owner would have been justified. Why not learn how to use the capsule system before you have entirely ruined what appears to be a popular horse? By limiting his services by this method you will have less reason to complain of the local swelling.

1165—BREEDING OUT OF HEAT—In one question last month you advised a man to breed a mare with a capsule that was hard to catch in heat. Are any and all mares bred with a capsule whether in heat or not, or just mares that are hard to catch in heat and mares with loose cervixes.—Montana Subscriber.

REPLY.—Some breeders report good results by breeding mares of all kind out of heat. It is not usually advisable, however, to advocate too many new things the first year. The best time to breed all mares is about two days after the heat period has closed. No mare should ever be bred out of heat except with a capsule. There are some arguments against breeding out of heat, as a mare bred between two heat periods is not quite as sure as if she were bred during or just after the heat period. Mares bred out of heat midway between two heat periods should not be tried at the next heat period, for they usually come in. Mare owners will not usually submit to that manner of doing business—they usually want the mares bred every time they come in heat.

1166—AZOTURIA—On June 8th, one of my customer's mares; four year old, which was apparently in good health and not overly fat, was taken sick; for three days previous she had not been at work. She was being fed about seven quarts of oats at a feed three times a day. On the above date she appeared dull and did not work up in her place as usual. In the afternoon about 5 o'clock she began to go lame in nigh hind leg and staggered aways and went down. In a short time they got her up and she went a ways and she went down again. They kept getting her up and got her near the barn where she went down. She seems to be paralyzed behind. The local veterinarian was called and said she was sunstroke. She seems to be crazy by spells. Has some fever and is very nervous; has failed to pass her water which has to be drawn with catheter, but her bowels move regularly; has a fair appetite; drinks well; respiration quick; short pulse, irregular sometimes quick and wiry. Sometimes sluggish, slow and weak. This mare was not worked very much, only doing about two hours' work in the half day.—Ohio Subscriber.

REPLY.—You have given the history and symptoms of a case of azoturia, and while this disease is not nearly as frequent during warm weather as during changeable, cold weather, yet it is by no means uncommon during the summer months. The best way to handle this case at this stage is to continue good nursing, looking to every comfort of the animal. She should be turned from one side to the other about three times a day. It is a good plan to place slings under the animal and raise her to a standing position once a day. Brisk rubbing of the limbs and the entire body for that matter is in order. Feed laxative food and water frequently.

1167—OPENING THE CERVIX—I had a mare come to my barn on a cold, rainy day. I did not examine her. On the 10th day following she was brought back seemingly in heat. I opened her up and found her closed tight and the cervix was hard but did not seem to be inflamed. I opened her up and when I let the jack cover her seemed not to be in the notion as well as she ought to have been. On the 21st day following she came in, in good shape and I bred her again. Do you suppose the mare was in foal and by opening her up caused her to lose it? What do you think about this mare? Did I do right or wrong? This mare was nine or ten years old and raised a colt a year ago, but not this year. Please explain the condition of the cervix after it closes when a mare is first caught.—Montana Subscriber.

REPLY.—The 21st day after being bred is the proper time for retrial. If you had examined this mare when she was bred, and returned later, you would have known what condition to expect in the cervix. If it had been open you would not have been justified in opening it on the 21st day; if the mare had fertilized, your opening up process probably would have brought her in a little later. The cervix closes with a mucous plug usually about the time fertilization takes place. When this plug is formed it should never be manipulated; if it is handled the plug is liable to break, giving the germs an opportunity to liquefy the plug. In that case an abortion nearly always follows. Every breeder should have a speculum with which to make this examination.

1168—SCROTAL HERNIA—I have a fine half Percheron stud colt about six weeks old. His bag is almost as large as my two fists; feels like his guts are in his bag. How and when or what age should he be cut?—Oregon Subscriber.

REPLY.—Read our reply to two other inquiries of a similar nature in this issue.

1169—STALLION SERVED A DISEASED MARE—I purchased a pure bred Belgian stallion last winter. He is a fine looking horse, and weighs a ton. I notice the semen is bloody and has a mattery substance in it. There are but a very few mares in foal from him. Can you tell me what is the matter with him? And can he be cured? I feed him hay and oats and give him plenty of exercise every day.—Idaho Subscriber.

REPLY.—Your stallion has possibly made a service on a diseased mare. Perhaps as good a thing as you could do would be to retire him from the stud and give him good care until late in the fall, then use the miscroscope and see what results you can get at that time. If he ever does get right again be more careful about the mares you breed.

1170—INJURED EYE—About three months ago a white scum formed on the eye of a three year old mare of mine. I do not know whether it was caused by a foreign substance or by a blow. The scum covers about one-fourth of the surface of the eyeball. I have tried clearing it up with salt and nitrate of silver but without results. It does not seem to get better or worse. I would consider it a favor if you would advise me what to do for it.—Montana Subscriber.

REPLY.—A little calomel and pulverized boracic acid blown into the eye every other day by means of a powder gun will aid in the absorption of the exudate responsible for the cloudiness. It may be that a part of the opacity is due to the agents you have been using as they are incompatible inasmuch as the insoluble chloride of silver is formed if the two agents are brought together.

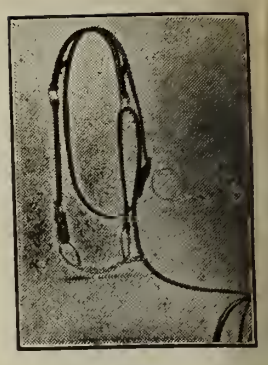
1171—BREEDING ENCLOSURE REQUIRED—Please give me the Iowa law on the rights of animal breeding on a man's farm. Is he obligated to make the service of a breeding animal under cover and tightly enclosed out of sight, or has he the right to turn his male animals in a pasture with his female animals and let them make the service at will? In the case of a stallion or jack has he the right to breed them in the open?—Iowa Subscriber.

REPLY.—If an objection is made, the owner of breeding stock can be declared a nuisance and forced to use an enclosure. This is not likely to happen with cattle or hogs, but no breeder should expect to make service in the open, more especially if they are in close proximity to dwelling houses.

1172—NAVEL ILL—What can be done with a colt that has navel trouble and has settled in his pastern joint? It forms pus and we have to lance it. It is a fine Percheron colt and we would like to save him.—Arizona Subscriber.

REPLY.—About all that can be done in such cases is to open the abscesses as fast as they form and inject into and apply around the parts a two per cent solution of iodine. Also bacterin should be administered once a week for several weeks.

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Controls the most unruly stallion without injury and will not hurt the kindest and most docile horse. Fits the largest draft stallion or the smallest roadster without adjustment. Made of the best leather. Shipment will be made on receipt of order, as I have them in stock at all times.

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1173—CERVIX CLOSED DURING PREGNANCY—I have a mare that has a colt and I bred her on the 11th day with a capsule and tried her on the 21st day and she didn't show any signs of being in heat, and the fourth week she seemed to be in heat. I examined her cervix, it was so I could insert one finger and then I tried her and she kicked something fierce. Is there any possibility of her being in foal? How soon after being bred should the cervix close up?—Nebraska Subscriber.

REPLY.—The mucous plug may form in the cervix within a very short time after service, but occasionally it may remain open for several weeks. You should have tried the mare by tying her to a hitch rack; removing all harness, and leaving her perfectly quiet. Then lead the stallion up within a reasonable distance where she might exhibit signs of being in heat. This is the best way to try mares, as a rule, anyway; at least, give them a try out. If they show to be in heat without being forced at a teasing pole, it is usually reliable.

1174—SCROTAL HERNIA—I have a fine horse colt which I think is ruptured in his bag. At times it seems to be about natural size and sometimes it is nearly as large as a quart cup. This colt is about six weeks old. What should I do for him? There is no veterinarian convenient.—Texas Subscriber.

REPLY.—It will be necessary to have this colt operated on by someone versed in the anatomy and pathology of the part, in order to relieve the condition and it is up to you to find a veterinarian competent to do the work.

1175—IMPORTED HORSES—I would like to know just how to tell imported Percheron horses. I have heard several conflicting ways, and would like to know the straight of it. I have been told that all imported horses are docked and also branded before they are permitted to leave France. I have also been told that only the best of them are branded, so that they could be readily told from the others. I have also been told that only the scrubs are branded, so that they could be readily recognized. Of course some of these are in error. Where is the brand, applied and are all horses docked? Do the papers with all imported Percheron horses show a cut of the horse and give the exact measurements and description of the same? Do the same rules apply to the mares as do to the stallions?—Kansas Subscriber.

REPLY.—Before January 1, 1911, an animal had to be registered in a recognized American association before it could be passed into this country free of duty. Since that date recognition to all American associa-

(Continued on page 15.)

The Fundamentals of Breeding

LESSON VII; THE BREEDER'S METHODS

By H. W. Vaughan of the Iowa Agricultural College

Long before Mendel discovered his aw of inheritance and before anyhing was known about chromosomes and the structure of the cell, breeders of live stock made great improvement in domestic animals and originated a large number of breeds. The study of these breeds shows that each originated from the common stock of some community in response to the demands from farmers in that community for animals better suited to their conditions.

Often animals were brought in from a distance and crossed upon the native stock in order to work improvement. Then by a long continued process of selecting for breeding purposes those animals which nearest approached the ideal in the minds of breeders, a uniform lot of animals finally resulted which when mated together reproduced their type in the offspring.

When this point was reached the improved animals deserved to be called a breed. However, improvement has been continued down to the present day, and in some instances breeds have been remodeled in type to suit changing conditions. Thus the breeds originated in a natural way and have been fostered because they are much improved over common stock, being highly developed to do special tasks and do them well.

Breeders have observed in their herds and flocks two great phenomena. First, no two animals are exactly alike, for in any breed variations may be observed in size, form, quality, fleshing, color, prolificacy, temperament, and disposition. Second there is a very strong tendency for offspring to resemble their parents and ancestors. This tendency we call heredity. Early breeders expressed it by saying, "Like begets like," and "Thick fleshed cattle breed thick fleshed cattle."

Because animals vary in all their characters, the breeder studies the produce of his herd or flock and watches for useful variations which mark a step forward in improvement. These offspring he reserves for places in the herd, relying on the power of heredity to perpetuate their good qualities; and so by small degrees he approaches his ideal as the years pass.

The breeders of each breed have organized themselves into one or more societies for their mutual benefit. The members agree what shall constitute the ideal toward which to breed and they establish an office in charge of a secretary who keeps records of pedigrees. When the pedigree of an animal is recorded the animal is given a number and from time to time volumes are published containing the numbers, names, sires, dams, breeders and owners of the recorded animals. Such published records help to prevent fraudulent pedigrees and place breeding operations on a sound basis.

This gives a bird's eye view of the pure-bred live stock business. As here stated it may seem an easy matter to establish, maintain and improve a breed of live stock, but such is not the case. Much time, effort and expense have been required to bring any of the breeds to their present state of perfection.

Few men, comparatively, are qualified to become constructive breeders of animals. In the first place, the breeder must be a critical judge of the breed he handles. The man who has natural live stock instincts must spend considerable time in close study of animal form and function before he can become a really good judge. The judge is partly born and partly made.

Constructive breeding means more than simply mating two animals of the same breed. Anyone can do that. It means studying every individual closely in order to find out its defects as well as good points and then so mating the various individuals as to correct weaknesses and strengthen the good points in the offspring. For example, there is an American breeder of hogs who has been known to study a sow very carefully for an hour before deciding which of the herd boars should serve her. This man recognizes the importance of brain work, and the high rank he has attained is due to the close study and conservative judgment applied to all his work.

What part does environment play in the breeding of better animals? By environment is meant the conditions under which the animals live, including climate, shelter, feed and care. Environment is an important factor in developing good animals. As was stated at the beginning of this article, each breed of farm animals was originated to suit the conditions of some certain locality. If taken to a far different environment in some other locality, a breed may there prove a failure because of different feed, different climate, different care and management, or some other unfavorable factor.

The breeder must provide a favorable environment in order to test his animals and determine their value. For example, how can a breeder of beef cattle know whether a certain bull calf is an easy feeder, and will take on a thick, smooth, firm fleshing, unless the calf is given plenty of feed and good care? Such care and feeding put the calf to a test and remove the doubt as to its ability.

Environment thus makes changes in animals that are for better or worse. If the environment is favorable it will assist and develop the inherited tendencies of the animal and enable it to fulfill the purpose for which it was bred. If unfavorable, the environment opposes heredity and the animal cannot fulfill its mission.

All animals are more or less plastic and can shape or adapt themselves to their environment to a large extent. Changes made in an animal in this way are called acquired characters and are not transmitted to offspring. Nevertheless environment does much toward making an animal good or inferior.

Breeders are greatly aided in their work by keeping as many records as possible. The writer knows a breeder of hogs who keeps records of the number of pigs farrowed by each sow, their weights at birth, their increases in weight each month, the number of pigs raised out of each litter, age when sold and the price received. These and other records kept by this breeder assist him greatly in breeding for easy feeding qualities, prolificacy and higher value.

Breeders of dairy cattle, trotting horses and poultry highly prize records of performance as guides in mating their animals. The weights of milkings and their butter-fat content are recorded. The time for the mile is a very important consideration in mating trotters and estimating their value. Trap nest records during the winter season and for the entire year are very valuable in breeding egg-laying poultry. Breeders of all kinds of pure-bred stock profit by records of their animals, but in breeds valued for some performance which can be easily and accurately measured, such as speed, milk, wool, or eggs, records have a much greater significance because they more fully reveal the animal's ability.

All pure-bred animals have pedigrees. When records of the performance of ancestors are included, the animal is said to have a "pedigree with performance," and such a pedigree is very important in valuing a breeding animal.

There is danger of over-emphasizing the importance of pedigrees, and this is especially true when records of performance are included as is the case with many trotting horses and dairy cattle. Animal breeding is not successfully conducted when the owner decides upon the matings from pedigrees spread out before him in his office or by the parlor lamp. If this is done and individuality is neglected, defects of conformation may gain a foothold in his herd and eventually defeat his plans. For instance, two animals may be selected for mating because of the excellence of their breeding; in other words the mating looks good on paper; but weakness of constitution may be common to both animals and if so it is probable that their offspring will exhibit this defect in greater degree so as to prevent the fulfillment of the animal's tendency to high production.

Enough attempts at selecting and mating solely on the basis of records have met with failure to show that such procedure is very liable to wreck the herd or stud. The breeder must not be carried away by performance to the extent of buying merely a pedigree. Choose several good individuals and then let the pedigrees be the basis for the final choice. A good animal should accompany the good pedigree.

The better, more progressive breeders are men of conservative judgment who are not carried away by one or a few points in an animal, but carefully study and weigh all defects as well as good points and endeavor to so mate their animals as to eradicate defects and strengthen good qualities.

AFTER SIX YEARS.

To the American Breeder:—I will write this as it will be six years next December since I commenced to take your paper and I haven't missed a single issue. I gain some knowledge from every paper. I read it closer than any other paper I take and I expect to take it as long as it is run on the principle under which it is now running. I cannot see why every farmer does not take this paper, as no man can run a farm without a horse, and there isn't a single copy but contains something of use to him sometime.

The trouble is there never has been enough of this kind of reading matter printed to interest the farmers in raising horses. Most farmers seem to think just because they have seen or owned a few horses that there isn't anything to learn about the horse. I have shown a good many copies to farmers and talked to them about the paper, and they will say there is nothing in the paper except about the horse, and at the same time I know that they could get a lot of information that they should have out of the paper. I have gotten more of them interested in this stallion show than anything else. I think a few good pictures like those, and of mares and colts, would help to interest them in the paper. I have had a good many of them make selections so they can see what kind of judges they are themselves.—L. D. Carter, Canyon County, Idaho.

"WILL HELP MY KIND OF HORSE."

To the American Breeder:—I believe it is profitable to send the Mare Owner Editions of the American Breeder, and also the 25-cent trial subscriptions. I know of no other way that will bring this kind of education to my customers. It is hard to show one where he might be mistaken, but you can continually bring before him the right way and this can only be done through a publication like yours. I believe if we could persuade every mare owner to take and read your paper there would be more and better colts raised by a considerable number in our country. Failures in business

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Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

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To settle an estate; 483 acre stock farm in Whiteside County, Ill.; 250 acres under cultivation; 30 acres timber and rest extra good pasture, can be broke up; 12 room house; horse barn 40x80 feet with 16 feet lean; other buildings in proportion to size of farm. No better farm in Whiteside County. For particulars call on or write,

WM. J. CANT, ERIE, ILL.

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Four choice irrigated alfalfa ranches in Colorado, with excellent water rights, adjoining good ranges; taken on debts. Call on or write

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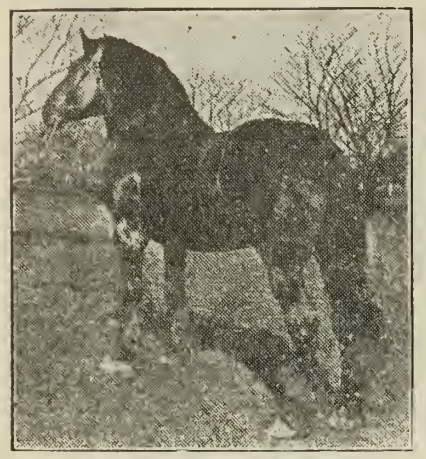
Farm For Sale

Well improved 160-acre farm, access to free range; $12.50 per acre.

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Bixby, Perkins Co., South Dakota

This Percheron Stallion



(Reg. P. S. A.), seven years old; black; for sale at a bargain, or trade for Percheron stallion equally good; Polled Durham cattle or good Percheron mare. Reason for sale has fillies up to coming four year old here.

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Iroquois Co., Gilman, Ill.

FIFTY STALLIONS AND MARES.



$250 to $1,000 Each.

Write for my illustrated circular telling why I can save you money on the purchase of Percheron or Belgian stallion or mare.

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Middlefield, Ohio.

R. R. Sta., E. Orwell, on Penna. Ry., between Ashtabula and Warren.

FOR SALE OR TRADE

Two year old registered Percheron stallion; good bone and quality. Also jack 14½ hands; 10 years old; a getter of the best of mules. Will be sold cheap.

Sutton & Porteous, Lawrence, Kansas.

generally come through carelessness or ignorance, and we cannot see it unless reminded of it. I think this education will cause mare owners to take better care of their mares and colts, also cause them to breed to better sires, which is certainly the only way to success in horse breeding. I think if we all become pretty well informed in our line of business we will always feel better toward one another, and be far more ready to meet our obligations with one another. And one thing sure, we will be more successful in our undertakings. I think all my customers who do take the Breeder appreciate it and that it carries its influence in their homes. I believe it will help my kind of horse in the future, as its teaches to patronize only the best.—George H. Howell, Montgomery County, Kans.

"BUSINESS GETTING BETTER EVERY YEAR."

To the American Breeder:—I think the Mare Owner Editions has brought me more business. Some of them thanked me. If the stallion owner would send the paper to everyone of his customers that did not want to subscribe for it, he would be money ahead. It would cause them to take better care of their mares and may be they would sooner pay the service fee. Business is getting better every year.—Leon Le Claire, Clark County, So. Dak.

REFORMING AN "EVERY-OTHER-YEAR MARE."

To the American Breeder:—The capsule system is all O. K. I bred an every-other-year mare on the 27th of May, 1913, and she now has twin colts a week old. Both are alive and doing fine.—Frank N. Taylor, Meridian, Ada County, Idaho.

WHICH IS THE OLDEST BREED

Editor's Note:—The inquiry below was published a few issues back in our "Question and Answer" department, and editorial reply was made to part of it. The inquiry as to the length of time the records have been kept and the breeds maintained in purity, we referred to the secretaries of the various draft horse breed associations in this country. Three secretaries replied and their answers follow the inquiry.

To the American Breeder:—We have been having some arguments as to which of the draft breed of horses are the largest as a whole and which made the best cross on common range mares, and bred truest to type. Also which have been bred purest and records kept. I hope to see some person in a position to answer these questions from actual observation and experience.—Franz Bros., Granite county, Mont.

To the American Breeder:—Replying to your subscriber's question, the first volume of the Shire Horse Society Stud Book was published in 1880 by the English Cart Horse Society and contains the pedigrees of 2,380 stallions foaled previous to the year 1877, many of those animals being foaled in the previous century.

Those records were supplied by members of the society from almost every county in England and especially by Mr. R. S. Reynolds of Liverpool for a long list of pedigrees which he had spent years in compiling.

A second volume was published one year later containing the pedigrees of both stallions and mares and have since published 34 volumes containing nearly 40,000 stallions and 75,000 mares.

The date of organization of the Shire Horse Society of Great Britain is not given, but believe it to be in the year 1875. Its first officers were as follows: President, the Earl of Ellesmere; vice-president, the Earl Spencer; treasurer, Mr. E. B. Foster; secretary, G. M. Sexton.

The American Shire Horse Association was organized and incorporated April, 1885, and published its first vol-1888, and now have nine volumes published containing nearly 15,000 pedigrees.—Secretary of the American Shire Horse Association.

To the American Breeder:—The Percheron breed is a composite one, based on the original foundation stock found in that district prior to 732 A. D. This foundation stock was not particularly large, but of a useful, durable character. The first introduction of outside blood was in 732 A. D., when considerable Oriental blood was introduced subsequent to the defeat of the Mohammedans at Tours, France. Other importations of Oriental stock took place in the 11th, 12th and 13th, and again in the 16th, 17th and 18th centuries. There was a constant tendency to increase the size on account of the use of these horses in war. The Oriental blood introduced the speed and agility, and size and strength was increased by a careful selection of stock. The Oriental blood also increased the symmetry, beauty and courage of the French stock.

It is impossible to say just how long the breed has been bred pure, but it has been maintained in practical purity since about 1830, though there has been a steady increase in size since that time by virtue of selection.

Authentic records of the breeding of Percheron horses were undoubtedly maintained by the French breeders themselves as far back as 1850 at least, but the establishment of public records or stud books dates to 1876, when the Percheron Stud Book was founded. It was the first stud book association ever organized for the preservation of records relative to draft horses. Subsequently in 1883 the Percheron Stud

BELGIAN EMPORIUM OF AMERICA

Our March Stallion Importation Ready to Sell.

Spring Mare Importation Arrives April 15.



Largest collection of Belgian draft horses on earth. Also 20 choice Percheron stallions. The fall importation of 100 head, the second importation for 1913 swells the number on hand to 175 stallions, mares and colts. Many prize winners; many descendants of [illegible]. All choice animals. We are farm[illegible] twenty-eight years in the Belgi[illegible] year adds to our strength, and m[illegible] tion in quality, quantity and price[illegible]. Four farms, all adjoining; 7 large [illegible]. Write for free illustrated catalogue.

H. LEFEBURE & SONS, Fairfax, Linn Co., Ia.

(Eight Miles from Cedar Rapids.)

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2 Percheron Fillies, 1 Stallion

Colt For Sale; All Very Choice.

Marmotte (imported); 2 years old; 17 hands; 1,600 po[illegible] black and strictly good.

Martinique (imported); 2 years; 17 hands; 1,610 p[illegible] to Marmotte and matches her nicely. These fillies [illegible] highest type of Percherons.

The stallion colt (Horatio 101852, by Imp. Glacis [illegible] 55260) a coming yearling; black; weighed 950 pounds at 8 months and is a fine prospect for a show stallion. A yearling filly from the same mare, and not as good a prospect, won first at the American Royal.

If you want something strictly good come and see this young stock and get prices. I am a breeder and want you to see my herd.

F. P. BURNAP.

107 West Tenth St. **Kansas City, Mo.**

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Percherons, Belgians and Shires



Home of the Iowa and International Grand Champion FARCEUR 7332 (72924), the greatest Belgian stallion in the world today. He is proving an excellent stock horse. Send your good mares to him and raise the best. Always a select lot of stallions and mares for sale at prices that cannot be beat for high class, sound, 2,000 to 2,500 pound horses.

WM. CROWNOVER, Hudson, Iowa.

Homewood Stock Farm

We have just purchased from Ed Harper of Onarga, Ill., his entire herd [illegible] Percherons consisting of weanling fillies and stud colts, yearling and 2-year-[illegible] fillies; some extra good imported and American bred mares, and the mother an[illegible] sister of the champion American bred stallion at the 1909 International. Th[illegible] stock has the very best breeding, size and quality. Mares are all safe in fo[illegible] and weigh 2,200 pounds. Everything will be priced to sell quickly.

This herd, with our other imported and American bred Percheron stallion[illegible] and mares, gives our patrons over 60 head to select from. Come and see us. N[illegible] one can show you a better lot of horses and mares than we can, and remembe[illegible] no one can undersell us.

We have also a few choice Belgian and Shire stallions and a choice pair [illegible] 3-year-old Belgian mares weighing 3,800 in foal.

Homewood is conveniently located 23 miles south of Chicago on I. C. and Bi[illegible] Four railroads. Suburban trains to and from the city hourly. Bell Phone, Hom[illegible] wood 58W.

S. METZ & SONS, HOMEWOOD, ILL.



Oak Lawn Stock Farm

Breeds and imports champion draft stallions and mares; Percheron, Belgian and Shire. All stock for sale at reasonable prices. Come and see them before you buy.

GEORGE EGGERT, Newton, Iowa.

A BRAND NEW IMPORTATION!

I was in France and Belgium all through May, making early, careful sele[illegible] tions from the best stallions and mares to be found. These are now at m[illegible] barns and ready for sale, along with some desirable American bred anima[illegible] It is a good time to buy.

LONZO McCLAIN & SONS, LIMA, OHIO.

THIRTY PERCHERONS AND BELGIANS



and one Shire. They range in age from 1 to [illegible] years; all sound and heavy boned; weighing fro[illegible] 1,800 to 2,200 pounds. There are 17 stallions and [illegible] mares. I will also sell my herd stallion, Jupit[illegible] 65723, coming 5 years old; weight, 2,200.

These stallions are all sold under a guarantee [illegible] be 60 per cent foal getters. I have four year ol[illegible] that weigh 2,200; 2 coming 3 that weigh 1,800. Ca[illegible] sell a good ton stallion for $750; sound and rig[illegible] in every way; some a little higher, and some lowe[illegible] I will sell at a bargain to early buyers. I ha[illegible] both imported and home bred. **PETER J. EGGERS, DENISON, IOWA.**

Stallions and mares of all ages for sale.

WHITEOAK STOCK FARM

American Bred Percheron Stallions and Mares.

The best to be had of the breeder—can show sires and ams of most of them. Always a large number to select rom at reasonable prices, considering the kind of stock. ddress your wants to **D. Augstin, Carlock, Ill., R. F. D. o. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles outheast of Peoria, ten miles northwest of Bloomington. Ill.



Long before M aw of inheritan hing was knowr ale.

ORSES

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Also Shorthorn Cattle.

ALSO SHORTHORN CATTLE.
Route 2, Plainfield, Ill.

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Route 2, Plainfield, Ill.

ALL DRAFT BREEDS

(Percherons. Belgians, Shires)

Impo and Bred
Stallion ys on Hand.
Some g ues in young stock now.

B. S. HARP **La Rose, Ill.**
30 Years the Business.

TWO IMPORTED REGISTERED MARES.

For sale. Scaling over two tons. One lack; 7 years; an International prize inner; other gray; 13 years; a Springield championship winner. Both sound, lean, unblemished; good breeders and orkers of oustanding class as their how records evidence, and again in oal to Jupiter 11. $1,200 for pair.
W. T. WILKINSON,
Eureka, St. Louis County, Mo.

ADDLE STALLION, PERCHERONS AND 10 JACKS.

For sale. Registered saddle stallion y the Great Chester No. 10; sound and good breeder. Two, two-year-old egistered Percheron stallions and ten acks from yearlings to five years old; rom 14½ to 16¼ hands high for sale t reasonable prices. Write your ants or come and see me.
W. L. Graham,
Mackville, Washington County. Ky.

STANDARD BRED STALLION
For Sale Right.

Dark chestnut, with star; 16 hands; rial record at 3 years, 2:23. He is a how horse, greatly admired and of he best disposition and training. Last eason he got 37 live colts from 51 nares, and I collected more money han it will take to buy him, as the airy business takes so much time I annot look after him. Price $500.

VM. HICKS, R. 4, West Chicago, Ill.

ROYAL BELGIAN STALLIONS.

The best collection of Belgian draft tallions, 2 to 4 years old, that was ver imported to Texas, for sale at easonable prices. Three blue ribbon inners, a champion and a sweepstake inner. Can be seen in Galveston, louston and at my farm at Cedar ayou. All first class breeders and ell acclimated. **LEON VAN MELDRT, Cedar Bayou, Harris County, Tex.**

LOOK
PERCHERON STALLIONS

The good kind; two to 10 years old; 300 to $600; black and grays. To see s to buy.
Must sell all. Come at once.
. SCHAUFELE, Colchester, Ill., Rte. 3.

65 GRADE PERCHERON MARES 65

ne to fifteen years old. Will sell easonably as I am short of pasture everal of the mares are in foal.

Wm P. GANNON, VALERIA, IOWA.

IMPORTED AND HOME BRED STALLIONS AND MARES.
PERCHERONS, BELGIANS. SHIRES.

The best importation we ever made s now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perche his year. See what we have before buying elsewhere. **Address Hart Bros., Osceola, Iowa.**

BELGIAN, SHIRE AND PERCHERON STALLIONS

and mares, also Standard bred stallions and mares, $200 and up. E. P. Hamilton & Sons, Garden Grove, Ia. (Mention this paper). 28 miles S. W. of Charlton, Ia., 82 miles south of Des Moines, Ia., at Leroy.

Book of France was established. Authentic records date from these dates. —Secretary of the Percheron Society of America.

To the American Breeder:—Your letter of the 18th inst. at hand asking in relation to the history of the Belgian draft horse. I am sending you under separate cover a booklet that I have recently gotten out that will give all the information your subscriber asked for in relation to the Belgian breed. I think his specific question is answered on page 12, as follows:

"'To show how fully Belgium is identified with the history and the production of this ponderous Mediaeval, we mention the fact that the name Brussels, the capital of that country, is but a modification of the old Teutonic word Broisel, which means brood, the present site of the city having anciently been a breeding pasture, devoted to the propagation of the animal in question.

"'From the compound thus early formed, came, after invention of gunpowder, and the consequent abandonment of mailclad cavalry, the large and somewhat varied family of gigantic equine drudges which have for some centuries performed the heavy domestic labor of all Europe. Belgium addressing itself industriously and intelligently to the task of reproducing its time-honored branch of this family, has for more than three hundred years steadily held an advanced position in the column or draft horse progress.'

"Belgium joins France on the northwest, and lies immediately alongside of what once constituted the French province of Boulogne. It was in the time of Bonaparte incorporated with the territory of the Napoleonic Empire.

"But Belgium is no longer politically connected with the French province of Boulogne. It is now a kingdom of itself. Hence it not only gives its own name to its work horses, but bestows upon them that peculiar care, multiplies them under the peculiar system, and rears them by those peculiar methods that constitute the differentiating point upon which, in view of the fact that their blood is purely indigenous back to the remotest mediaeval ancestor, they are most properly called by the name under which they are now registered at home and imported to this country.

"In Belgium the lineal descendants of the mighty destriers who bore the Knights of the Red Cross, on the plains of Asia Minor, to the grandest cavalry victory that was ever recorded by the pen of the historian, have been most thoughtfully and honestly bred in line for industrial uses, during the whole of the eventful period which reaches rearward to the reign of Queen Elizabeth, while up to that time they had been bred in line for military uses, from the date of the rise of the Carlovingian power—770 A. D.

"Here, therefore, we have a breed which has been established for 1,117 years, and which has been reproduced, in purity, for cart work longer, by more than twenty-five years, than the English thoroughbred has been propagated for the turf."—Secretary American Association of Importers and Breeders of Belgian Draft Horses.

BUSINESS INCREASED 100 MARES EACH YEAR.

To the American Breeder:—I see there are some men that still doubt the artificial method of breeding, or rather they are prejudiced or against it. There is no good way of making any money out of breeding stock unless you adopt the capsule method of breeding. I bred over four hundred mares that way last year. I have been breeding that way three years and my business has increased about one hundred mares each year. I can show you capsule colts that took the premiums at the local fairs. I can show you mares that have been bred six or eight times by natural service without having a colt and I have foaled these same mares witb capsules at the first service.

The greatest drawback to artificial breeding is men trying to breed with capsules who have never made a study of the matter. The first thing for a man to do is to go to the Scientific Breeding School. He will learn more there in one term than he could learn in a natural life time by experience. —W. P. Smith, Caddo County, Okla.



ASTRAL KING 2805.

ADVERTISING WORTH

in any animal or article, when it is backed by genuine merit of an exceeding degree, represents value as real as any perfection of form or quality. Every breeder knows its importance.

ASTRAL KING

is the best advertised saddle stallion West of the Mississippi and his ability as a sire and a show horse puts a foundation under this advertising that is solid as a rock. Every man who buys or owns Astral King blood shares in the benefits of the many thousands of dollars' worth of honest advertising this great horse has received.

For any further information address

JAMES A. HOUCHIN, OWNER
JEFFERSON CITY, MO.

FOUR GOOD REASONS AT LEAST.

To the American Breeder:—Education along new lines always works slowly. Most farmers are busy people, leaving little time or inclination to study new things, preferring to allow the "specialist" to do their thinking for them and then following or not following his advice, according to natural mental attitude. However, I shall continue to send the Mare Owner Editions to my customers, because some of the recipients read and think, even occasionally thanking me for the favor, because some get ideas from the paper as to how to care for their mares and colts, because the paper reaches them just before the season, reminding them that you and your animals are still on the "map," because a "little wave of influence set in motion expands and widens to the Eternal ocean."—C. E. McMillan, Montrose County, Colo.

THE BEST PROFIT FOR THE MONEY SPENT.

To the American Breeder:—I never have spent a small amount of money that brought me more profit than the money I have spent sending the Mare Owner Editions to my customers. It shows them that you are interested in their behalf. It causes them to take better care of their mares and colts. It causes them to understand the value of using a good sire. I expect to send several more next time. I would advise every breeder to try sending some edition to his customers and see how much it will increase his business.—John Wilson, Union County, Ill.

EXPERIENCE OF OTHERS REQUESTED.

To the American Breeder:—We have a four-year-old stallion of the Percheron breed that was given a service every other day last year and a service every day this year. Very few mares settled prior to July 1, 1913, but from then on to December 25, we had good results. This spring we have been following him with the microscope. We find the vitality of the sperm cells varies—about one service out of six proving very inactive. Does this indicate a normal or abnormal condition of affairs? If the latter, what should be done? Stallion has exercise in the harness at light work several days in a week. Is fed oats, bran, a little corn for variety, and grass in season, with good mixed hay. I have been told that all stallions vary in the vitality of the sperm cells, as does this one. We are interested in knowing from those who have used the microscope whether or not this is true.—Ohio Subscriber.

"STETSON" A-2788

For sale—He is a pure bred, dark bay, blaze face stallion, 17 hands high; is in good condition and plenty of colts to show. He was foaled in 1907 in Lexington, Ky. Will include a $125 speed cart with this horse.

I also have a black Spanish jack, Tennessee bred; stands 14.1 hands high; 9 years old; plenty of colts to show. Will sell this stock cheap, as I am leaving the country.

F. W. SCHWIEGER, OWNER.
Olmstead, Ill. Box 49.

FOR SALE OR TRADE

Nine-year-old trotting stallion; Futurity sire; weight 1,150 pounds; by Directum Kelly, 2:08¼; dam, grand dam of Braden Direct 2:01¼; bred right. Can use big jack, Percheron, Coach stallion or gaited saddler; also yearling pacing filly, race prospect.

F. GILGEN, EATON, COLO.

Stallion For Service

Council Chimes 2:07½; pure bred license No. 1769.

A demonstrated speed sire; sire of Minnie Chimes 2:04½, and many others in standard time. Liberal terms on application. Write for pedigree and information.

I have a good French draft stallion and a big grey jack for sale.

DR. D. H. BIBENS, Larned, Kans.

REGISTERED MORGANS.

My Morgans are large; 15 to 16 hands and 1050 to 1300 pounds; have clean, heavy bone and possess all of the style and endurance for which the breed is noted.

Having bought Headlight Morgan to head a selected stud of The Admiral mares, The Admiral is now for sale. He is 15¾ hands high; weight 1250 pounds, and is the greatest all-round horse I know. I have 200 of his get on the place; part of them for sale.

RICHARD SELLMAN, Rochelle, Texas.

BLACK HAWK MORGANS.

For sale, or will exchange for young, small, unbroke range horses, six registered black stallions; two matured; 15½ hands; 1,200 pounds; two, three years old and two, two years.

E. F. BROWN, DERBY, IOWA.
R. F. D. No. 2.

WHITE ARABIANS FOR SALE

Eight head, six mares and 2 geldings, two to four years old; fair size; pink skin. Team of four year olds broken to work. Will sell worth the money. Write or come and see them.

HERMAN SHY, Dove, Ohio

EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Ponies for sale. W. H. Fulcomer, Belleville, Republic County, Kansas, Member American Shetland Pony Club.

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Two carloads of 3 and 4-year-old mules, 14½ to 15½ hands high. Good bone and quality.
A. A. JOLLEY, FLEMING, COLO.

TWO EXTRA GOOD HERD JACKS.
Can't Be Beat.

One 12 years old and never sired a jack that did not get 15 hands standard. The other is five years old and is a fine and large jack. Both well marked and registered. I will sell one cheap, as I do not need both. The old jack has got three-fourths of his colts—jack colts—here from one month old to three years old.
R. M. JOHNSON, BOLIVAR, MO.

Jacks For Private Sale

In order to reduce my jack stock I will sell at very much reduced prices for the next 60 days. I raised most all of my jack stock and can sell them cheaper than the man that deals in them. My jacks are all black with white points; in ages from 2 to 6 years old; in sizes up to 15¾ hands.
U. G. SAUNDERS, Flemingsburg, Ky.

6-JACKS--6
17-JENNETS-17

The jacks are three and four years old, and they and the jennets are all good stock. All black with mealy noses. I want to close them out this spring, and will make the prices right.
JOHN A. EDWARDS, Englewood, Kas.

EXTRA GOOD JACK

For Sale. Coming 4 years old; 15¾ hands standard; weight around 1,100 pounds; black, with white points, nicely marked. Sired by Missouri King that sold for $2,000. Good enough to head anybody's herd of jennets. Come and see a good one; if you don't find him strictly good I will pay your expenses.
T. E. COLLINS. BELLEVILLE, KAS.

MAMMOTH JACKS

For sale—Large, heavy boned, 15 to 16 hands high. Prices from $250 up. Located eight miles west of Cedar Rapids, Ia., near Fairfax.
JOHN HENRY, Fairfax, Ia.

What Breeders Say About Jacksorine

The Greatest Remedy Yet Discovered For All Sores on Jacks, Horses or Mules. Price $3.50 Per Can.

"I have used two cans of your Jacksorine and I regard it as being as good for jack sores as anything I have ever used. Have been in the jack business for over 30 years.—J. W. McCanse, Mt. Vernon, Mo."

"I have a fine jack which got one of his front legs in the pit, and he got to gnawing it and made a very bad sore which refused to heal for all remedies until I got a box of Jacksorine and cured it with half a box.—J. A. Johnson, Erick, Okla."

"I have tried your Jacksorine and find it the only medicine for jack sores. I can recommend it to any one who has jacks with sores on them.—Sam Molen, Frazer, Ky."

"I have used your Jacksorine, and after having a jack with five different sores on him, and trying every remedy that I could hear of, and giving him up as incurable, I got a box of your Jacksorine and cured him inside of 60 days. I consider it has no equal.—A. M. Perkins, Washington, Ind."

"I had a jack with a bad sore. I tried two veterinarians on him but they failed to do him any good. I saw Jacksorine advertised and sent and got a box and it cured him sound and well. I think Jacksorine is everything that it claims to be.—H. D. Power, Alto, Texas."

"Make my claim for Jacksorine as strong as you wish. I used it and found it O. K.—H. G. Belt, New Salem, Ohio."

"I have used several cans of Jacksorine and have found it to be the best thing I ever used for jack sores.—Wiley Clouston, Ness City, Kans."

"We have never used Jacksorine on jack stock, but have used it on a very bad case of grease heel on a stallion, which use gave very satisfactory results. We can recommend it as being a No. 1 ointment.—Jas. and W. R. Clelland, New Hampton, Mo."

"I have used Jacksorine for two seasons with good results. Will want another can soon.—O. A. Seaton, Jewell, Kans."

"I am using your Jacksorine with good success. Would recommend it to all as a reliable remedy for jack sores.—Cliff Hutton, Hennessey, Okla."

"I got a can of your Jacksorine which I used on a mare that had an old sore on her hip, caused from mad itch. It sure does the work and does it well.—J. C. Starkey, Marquard, Mo."

"I have used your Jacksorine to my entire satisfaction. I find it to be absolutely the best remedy for jack sores I ever used. Can heartily recommend it to anybody.—O. W. Layson, Hatton, Mo."

Under new management and partly as a result of greatly increased sales, the price of Jacksorine has been reduced from $5 to $3.50. Its **old high** standard of quality will be absolutely maintained.

Jacksorine undoubtedly is the best remedy for jack sores ever put out. It is put up in large self sealing containers from a scientific prescription and was long used with absolute success by the president of this company on his own stock. **Remember, the price is $3.50 per can, postpaid.** Remit by P. O. order or bank draft to

O. P. WILSON & CO., Lock Box 489, Kansas City, Mo.

GOOD CAPSULE MULE.

To the American Breeder:—R. P. Hendren of Springfield, Washington County, Ky., is the owner of a capsule mare mule colt, 45¼ inches high when about eight hours old; conformation almost perfect, with style that will attract unusual attention. Good judges say she is one of the finest that has ever been foaled in this section of Kentucky. Mr. Hendren will probably show her at several fairs this season. He also states that last spring the dam of this mule was bred under unfavorable conditions. He sent to Will Gabhart's great jack, near Harrodsburg, a distance of about 16 miles. There were four other colts got at this same service and they are almost as good as this one. Of course the jack is a very fine one and that is one reason the colts are so good. But he could never have gotten this colt, and many others, if it had not been for the capsule system. It has also enabled one of the finest saddle stallions in Kentucky, or the United States, as far as that matters, to foal 112 mares last year. He stands at $50 for a live colt. Figure on this. It is Bohemian King, who has 600 young horses in 28 different states. The first prize winner of the $10,000 Futurity for suckling colts in 1912 was Satsuma Chiefton, one of the most nearly perfect colts ever foaled by Champion King Chiefton, was brought into existence by the impregnator. It is safe to state that in three or four years from now the person who will not try to use up-to-date breeding methods in this section will be compelled to quit the business, and should be.—Mack Hendren, Washington County, Ky.

IOWA IN THE SPOTTED MULE GAME.

To the American Breeder:—I see in your paper that Scott Miller has some odd colored mules. On June 10 a spotted mare foaled a jet black mare colt with four white legs. As this was a capsule colt we are very proud of it, and will some time in the near future send you a photograph of this mule. We are having good success with your plan of breeding, and our business is increasing. Last year we bred over 500 mares and this year I am satisfied we will beat 800. We are also getting a better class of mares and customers. We settled six mares in the early part of the season out of eight we bred at one cover.—Wyatt Carr, Story County, Iowa.

WANTS TO KNOW ABOUT HINNIES.

To the American Breeder:—I noticed an article that interested me very much. I wish all the light on the subject your readers can give me. In the June 5th issue there is a picture of a burro and hinnie colt, owned by Mr. Lyne. What state would you go to to buy some burros to start in the business of raising hinnies? Is there any difference in burros? What kind of a stallion would be the best to use to get the best results, Morgan, standardbred trotter, German Coach or French Coach? What size will the hinnies get? What demand is there for this grade of mule? How will burros do up in Northern Iowa, and will they breed every year? Are they very hard to get with foal? I own a fine 300 acre farm, well improved, and if the advice I receive is favorable I may take up the business. Would be glad to hear from others through the American Breeder.—A. P. McGregor, Wright County, Iowa.

P. P. EXPOSITION PRELIMINARY LIVE STOCK CATALOGUE.

This office has received from the live stock department of the Panama-Pacific Exposition a preliminary catalogue showing the live stock classifications for that great show. Of course practically every known breed of improved farm animals is represented, and the prizes are liberal. In the Percheron and Belgian horses, for instance, the list calls for seven prizes and five moneys, the first money being $100, excepting for yearlings and foals. In addition, there will doubtless be specials, as well as the championship moneys and medals. Other draft breeds will no doubt be as well provided for when the complete classification is out.

Premiums for beef cattle run about half as much as for the draft horses. Dairy cattle will get more money than beef cattle.

Of harness horses and the lighter classes, the Standardbred trotters get the largest prizes, $75 being the first money, in most cases, and $30 the fifth money. Prizes of about the same size are offered for jacks and jennets, and in addition $350 or more in special prizes has been appropriated by the Standard Jack and Jennet Registry of America. Mule prizes are



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12 saddle stallions, 30 saddle mares and geldings and 63 jack and Percherons. We have the best lot of fox-walking stallion and mares that can be found on any farm in Kentucky. Man of the mares have colts by their side by the best stallions in th state. At the 1914 National Stock Show in Cuba, we won first o fox-walking stallions, 2nd, 3rd, 4th and 5th on fox-walking mare: All stock must be sold at once to wind up the estate of the lat H. T. Brown.
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Henry Obermann & Son, Frelstatt, Mo



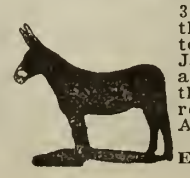
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fairly liberal as to size, but provide for only five places and three moneys. As this is the preliminary classification, there is always a possibility of changes in any class.

QUESTIONS AND ANSWERS

(Continued from page 10.)

tions has been withdrawn, and the government inspects each animal. In case the horse passes inspection, the registery certificate is stamped, "Passed this entry free of duty," giving the date and name of importer. If this animal is not registered in a recognized foreign association, then duty must be paid and there will be no stamp on the certificate by the Bureau of Animal Industry. Some imported Percherons have a mark on the neck that looks very much like the American dollar sign. It is SP, with the S on the top of the P. Not all of them have this mark. Nearly all of the best horses in Europe are docked, but not all of them. Some of the best that ever came across the ocean have had long tails. Do not be confused with brands or tail-cutting propositions. You must rely entirely on your registry certificate; at least, that is the way the Bureau of Animal Industry does. This branding business has been a joke. It never did have any value; neither has it any now. The same rules apply to mares as to stallions.

1176—AFFECTION OF NERVE CONTROL—I have a three year old gelding. About the first of the year he got stiff behind and walks with his hind legs far apart, and lifts them too high. He is not sore any place, but is worse in stormy weather. He has his penis out most of the time, and it is stiff a good deal. He was altered when a yearling. Was always fat and playful but now is poor and dead-headed.—Montana Subscriber.

REPLY.—It is quite likely that your horse has some lesion of the nerves controlling the hind limbs which is quite likely located in the region of the back in the neighborhood of the coupling. If possible, you should have a good veterinarian look him over carefully, but we fear there is little encouragement in the case.

1177—CHANGING SIRES—A man brought me a mare a few weeks ago and I examined her and found her vagina sticky like glue. I washed her out good and bred her and in 28 days bred her again; she was lots better by this time and I told the fellow she was getting better and I thought I could get her in foal. He bred her to another man's horse nine days after my horse served her before she went out of season. What can I do? Can I collect pay for labor for myself and horse, or what can I do?—Iowa Subscriber.

REPLY.—Your competitor has probably had some influence over the mare owners. You should not attempt to clean up mares for anyone who will not agree to give you a fair trial. Your competitor has probably informed this mare owner that his stallion is very sure with shy breeding mares. If this is the case you might accommodate the other stallion owner by sending him a good number of diseased mares. When a mare is presented at your place that you do not want to bother with, simply state that you do not have time to make so many services on this particular mare at this time, but that your competitor is asking for this particular class of work. If you are able to make accurate examinations you might agree to pay the service fee in case these mares get with foal. You can explain to your customers that your stock is just as sure as any other stock but you haven't got time. About one in 20 of the diseased mares will get in foal without some assistance. These mares will require three to four services each during a breeding season. Your competitor might get two or three colts out of that number of services, which you could well afford to pay. One season is about all that he can stand of this kind of work. This, however, is not a very friendly act; neither is it to the best interest of your community. He will scatter the diseases throughout that section so that in time you will feel the effect of it. If everything else fails and your competitor will not be a man, he can be taught a very good lesson by this plan. The next mare you undertake to clean up have a thorough understanding before you start.

1178—A WORLD'S FAIR CHAMPION STALLION—Can you please tell me where the St. Louis World's Fair champion Belgian stallion is? I think he was Trappiste 1426?—Oklahoma Subscriber.

REPLY.—Trappiste 1426 was registered by J. Crouch & Son of Lafayette, Ind., and still appears in their name on our records, as he has never been transferred on our books. You will find his pedigree on page 254 of our Volume I.—J. D. Conner, Secretary Belgian Record.

1179—WARTS—I have a very fine young stallion, 18 months old. I noticed about three or four months ago that his nose and lip were covered with little warts, and I commenced rubbing them with castor oil, and I decided that treatment made them grow. Now some of these are as large as a grain of corn, and they are growing. What will I do to get rid of them?—Texas Subscriber.

REPLY.—Frequently the application of castor oil for a long period of time will effect this removal. It is quite likely that the ones you are having experience with can be removed by snipping off closely with a pair of scissors and then burning the root with a burning hot iron. Better turn this job over to some good veterinarian inasmuch as you have a good young horse.

1180—LAMINITIS—I have a mare that when she lies down at night she won't get up in the morning until I make her and when she gets up can hardly stand; she jerks her hind feet up and down and her front legs will be stiff as boards from toe to shoulder. She will try to walk but can hardly get along. Then she will try to urinate several times but the urine is very scant and she seems to strain as if it hurt her. She will hobble about in this way 20 or 30 minutes and get so she can go all right the rest of the day. I work her on the farm and work don't seem to make her any worse. She has been this way all spring. She has not raised a colt in two years and is not in foal now; she is about 12 years old; in good shape and eats heartily. I feed her ear corn, millet hay and corn fodder. If you can give me any information as to what is the matter and what to do for her I will greatly appreciate it.—Arkansas Subscriber.

REPLY.—It is quite likely your animal is affected with chronic laminitis. Try standing her in moist clay for several hours a day for a week. At the end of that time apply a small blister around the coronet of both fore feet. Apply some vaseline to the hoofs once a day to prevent drying out and give a run at pasture. If improvement is noted, repeat the blister every three weeks.

1181—WIND PUFF—We have a mare that has a soft wind puff in her hind leg down in the hock joint. The wind puff is about the size of your fist. It does not seem to make her lame in any way. Any information that would help to remedy this puff would be greatly appreciated.—Oklahoma Subscriber.

REPLY.—Bursal enlargements do not always cause lameness, neither can they be satisfactorily removed so that it may be said to pay. It is quite impossible to completely remove the enlargements so that the animal is left with a blemish anyway. About the best way to do is to forget they are there.

1182—CONTAMINATED MILK—I have a young cow two years old that dropped a calf in January and did well until I bred her in May. Gives a good flow of milk and all o. K.; feels good and eats heartily; looks good, but the milk strained and stands for 12 hours, and under the cream there forms water and the milk curds just as though it had been put on a hot stove; sticks to bottom of crock and is away from the sides, and is as white as snow.—Indiana Subscriber.

REPLY.—If this milk is kept at the proper temperature considering the time of year and then behaves as outlined, it is very probable that certain bacteria are getting into the milk and causing the trouble. First, know that all milking utensils are thoroughly washed and scalded and exposed during the day to bright sunlight and scalded again just before using. Previous to milking, place the cow in quarters free from dust and with a clean, damp towel thoroughly wipe the udder and neighboring parts. Study carefully your food supply also.

1183—SCROTAL HERNIA—I have a colt that is ruptured in the bag. He is 14 days old today (June 13). What can I do for him?—North Dakota Subscriber.

REPLY.—Such cases need to be operated on by a skilled veterinarian who will no doubt perform what is known as the covered operation. Such an operation, when skillfully done, entails little risk on the colt and is best performed on the colt while small.

1184—STRANGULATED INGUINAL HERNIA—Two other parties and myself were the owners of a splendid Belgian stallion. Had made three seasons with him and had just got fairly started on the fourth; had proven to be one of the surest and best sires that ever came into the community. Never had a sick minute until May. Started him out apparently in the best of shape; bred one mare, tried two more and then he showed signs of being sick; in a couple of hours he seemed to be feeling better; did not last long, but got worse. He lived until the second day until about 5:30 p. m. We held a post mortem and found one of his intestines had doubled and slipped down through the abdominal ring about five or six inches causing a strangulation similar to a strangulated hernia in a man. What I want is an opinion through your paper as to whether you think an operation would have been performed successfully in a case of this kind. He was an unusually thick middled horse; had weighed better than a ton, but about 1,800 in ordinary flesh. My contention is that it would have been an utter impossibility to have saved this horse by an operation. Another thing, could such a thing as the above mentioned case occur without a rupture of some kind taking place beforehand?—Illinois Subscriber.

REPLY.—Strangulated inguinal hernia is not uncommon in stallions and many a good animal is lost through failure to make a diagnosis of the condition early. If a conclusion is reached early of the trouble and the bowel cannot be replaced by means of gental traction through the rectum, then it becomes necessary to operate in order to save the life of the animal. If such an operation is skillfully done before the bowel has become inflamed on account of the obstructed circulation through the part, the horse often can be saved. To delay only courts death. It is not necessary for a rent to occur in the internal ring to permit the bowel passing down into the scrotal sac and becoming imprisoned.

1185—MARE WEAK BEHIND—I have a seven year old mare that foaled May 7th, and has not been able to work since. She is weak in her hind legs; gives way when walking; walks sideways. She brought a very large colt. Was very fat when foaled, but had been at moderate work. She had a colt when five years old. I bought this mare last fall and can't tell whether she had had any trouble before or not. Do you think she will get all right and what can be done for her? —Oklahoma Subscriber.

REPLY.—It is quite likely that this mare was injured during the act of foaling through undue pressure on the nerves that supply the hind limbs. The most of these cases no worse than the one you report recover in the course of time. Do not attempt to work her, but give her a season's rest at pasture with the colt. Nothing but rest will help such a case ordinarily.

1186—RING BONE—One of my customers has a mare that has a ring bone. It is pretty low down. It has just come on and he wanted me to tell him something to do for it, but I don't know what to have him do. Will you please tell me what to have him do?—Nebraska Subscriber.

REPLY.—This affection involves the articulation of the lower part of the limb and is best treated by a judicious use of the firing iron. This you will be unable to apply and should have your friend take his animal to some competent veterinarian for advice and treatment.

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See Page 13 --- Winners In Percheron Show



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FALL BREEDING SEASON.

Every breeder that can possibly arrange for it should advertise a fall breeding season, even though it be for only a very short period. There are some mares that will not fertilize during heavy labor, or during the spring season, that will fertilize without any treatment during the fall. All mares having the heaves, or crippled mares, should be bred in the fall. It is better for the stallion or jack to make a few services in the fall. In fact, the best method is to have a few services scattered throughout the entire season, with a less number during the rush of the spring season.

But the important thing for the fall season is to round up all those mares which have failed, and have them cleaned up, so as not to be bothered with them during the next spring. This can be accomplished with less cost, as the breeders are not busy in the fall. Quite frequently the mare owners also have more time.

A fall season may be advertised for one hour in the day—an hour that would be the most convenient for the owners. It may consist of two weeks or four weeks or such a time as the owner can spend at that business. There are a lot of diseased mares in the country that need some attention. Practically every stallion or jack owner knows all the mares that have given him trouble during the past spring season. By using the telephone, one can usually make dates for these particular mares.

The average breeder can turn to his books and find that more services are made on the mares which do not produce foals than are made on those which do produce foals. This is a statement that should make every breeder think for himself. The breeder who does not make a little preparation will find himself in trouble again next spring. The time to prepare for the next spring is right now, by making arrangements and giving his business sufficient thought to overcome the problems with which he has been confronted during the last season.

PREPARE YOUR FEED NOW.

Some localities will have an exceptionally large yield of oats; others not so good. But as a whole the average yield will be a little better than the regular ten-year average. The production should regulate the price, which will be a little lower than an average of recent years.

This is the time to lay in a good supply of oats and other feed. It should be kept in such a way as not to be musty or dusty. Dusty or mouldy feed is injurious to breeding stock. There is no other feed as necessary for stallions or jacks as good oats. In fact, it should be practically the only grain given to breeding stock at any time. Some stallions have made wonderful records on corn, but in all probability the same sires would have done better on oats.

The hay problem should be attended to soon. A sufficient quantity of feed should be stored away so that it will not be necessary to change feed during the next breeding season. New feed is not good for breeding stock. A lot of breeders have been forced to use new hay owing to the shortage of last year. Results have shown the fact that new, washy hay is not good for breeding stock.

CLOSING THE BREEDING SEASON.

Within the next few weeks practically all of the breeding will be over for this season and a lot of stallions and jacks will be stored away in little, hot box stalls until next spring, when they will be expected to come out in perfect condition.

Some arrangements should be made for exercise, fresh air, sunshine and an abundance of good, fresh water. Feed is not all important. A reasonable quantity, given at regular times, will be sufficient. The plan of having a little pasture, fenced stallion tight, with a small barn on the north side (which we have described before) is the cheapest and best way for handling such stock. Not only is it profitable from a breeding standpoint, but is really the best life insurance one can invest in. Stock handled in such a manner will be healthy and there will be less danger of infectious diseases and masturbation.

Another important feature at this time is not to stop the service too abruptly; the service should be discontinued gradually. Stallions which have been used severely as teasers, and at heavy service, are more liable to form bad habits when the season stops suddenly.

HOW MUCH SHOULD BE PAID FOR PROTEIN?

In a recent discussion of cattle feeding experiments, Professor Bliss of the Nebraska Agricultural College emphasized in a striking way the common-sense policy of making the farm furnish the feed. His suggestion applies with equal force to the feeding of every other kind of livestock, and if it had always been heeded and studied would have changed many a feeding operation from a profitless one to one of profit.

In referring to the cost figures applied to the various feeds used in their experiments, Prof. Bliss said:

"Alfalfa is figured at the fixed price of $8.00 per ton in each table. In addition to this, I shall add a note below each table showing what the cost of the ration would have been had the alfalfa been charged at the rate of $5.00 per ton. I am doing this because I do not believe that any beef producer in Kansas ought to pay more for protein in the form of by-products than it will cost him to grow it in the form of alfalfa. The assumption is that most farmers living in Kansas can, on the average, grow and feed out on their own farms a ton of alfalfa at a cost of not to exceed $5.00.

"If alfalfa that cost $5.00 per ton to grow can actually be sold for $8.00 per ton at the farm, the steer should be charged $8.00 per ton for what he eats, and the additional profit should be credited to the farm and not to the steer. This is a mere matter of bookkeeping and in no way alters the proposition that beef producers in Kansas should not, in beef production, pay more for protein in the form of by-products than it will cost them to grow it in the form of alfalfa."

CARING FOR COLTS IN SUMMER.

Colts which are required to follow their dams while at labor, and fight flies, will not make much progress. The best policy is to have a good, big colt shed where these youngsters may be confined. After they are a few weeks old they will begin to eat, at which time they should have plenty of oats and a little green stuff. The mares usually work better when they are not bothered with the colts following. It only requires a short time for a mare to get accustomed to leaving the colt at home.

Mares which are turned out in the pasture without any protection or feed cannot be expected to develop a colt to the best advantage. The best growth obtainable can be made by having the mare and colt in an enclosure during the day time, with sufficient feed, and allowed to run in the pasture at night. These long, hot days are very trying indeed on the young foals. Greenhead flies will be coming on soon in increased numbers this year, in sections which are having more rain than common. A good mare will make more money if she has a little attention of this kind at this time of year. After the colts gets large enough to eat more grass, the need of care is not so great, but no breeder can expect to get the best results without feeding some grain, in addition to pasture.

THE GOODS YOU SEE ADVERTISED

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The quality of an advertised article cannot be lowered without causing a loss of the money spent to make it widely known. To protect his own investment the advertiser must maintain his standard of quality.

The output of a widely advertised article is so great that the economy of its production practically always leads to improvements here and there, making it better and more lasting than non-advertised goods of the same price.

Publicity, the greatest improver of political and social conditions, has the same beneficial effect on merchandising. No manufacturer, whose product is a reproach, dares spend a cent calling the public's attention to his firm, his goods, or his trademark.

INVESTIGATE THIS POINT BY GETTING THE CATALOGS AND PROPOSITIONS OF OUR ADVERTISERS—and always mention the American Breeder.

SLOW JACKS.

One of our readers states that he has an extra big, fine jack, which everybody wishes to patronize, but the difficulty is that it will not serve a mare; occasionally with the help of a jennet it will make a service on a mare.

Prevention is much better than a cure in a case of this kind. The best time to start this prevention is at weaning time. If this jack had been weaned and kept separated from all long-eared animals of whatsover kind, then it could easily have been taught to serve mares promptly. During the weaning process is the important time. Every jack colt should be placed with horse stock, preferably a filly colt, and given all the feed it will eat. If green pasture can be added, so much the better. Size and development are important, but if the young jack is allowed to associate with jennets or mules, the owner can expect to have a slow jack.

It is remarkable how many men there are in the country who do not know that it is necessary to separate young jacks from their relatives. If every breeder in the country would make it his business to inform owners of jennets of this particular feature, and explain to them the great difference in value which is caused from this association, there would be very few slow jacks. There are, however, a lot of professional breeders who will mate a young jack with a jennet before the animal is thoroughly broken to mares. It is not usually safe to use a jack on jennets before it is five years of age. There are exceptions to this case, but the safest method is not to use a young jack on jennets.

Let us ask everyone interested in jacks to make it his special business to inform owners of jennets about this great difficulty.

SHOWING COLTS.

The season will soon be at hand when the fairs will be attracting the attention of those who exhibit the youngsters. In order to get the best results with either a colt or a horse it must be well broken for the show ring. It does not require a great length of time for this education. A good halter should be placed on the colt and it should be taught to walk down a track a distance of perhaps 40 yards; the next time trot down, then made to understand that it must stand perfectly quiet without jumping around. Repeat this performance several times a day, not making these lessons too long at any one time. If the colt does not move out satisfactorily to begin with, have someone ready with a good keen whip that will make it interesting without overdoing it. Be very careful not to jerk the colt so that it will be afraid. In a short time it will enjoy this training and like to go through with the program.

One time a groom said he would just as soon take a barefoot girl to a picnic as to try to win anything with a green, awkward colt in a show ring.

Closing The "Montana Man's" Case

To the American Breeder:—Our Montana friend certainly started something when he sought information for breeding his mares through these columns. When he gets through reading the opinions of his friends he will probably feel more undecided than when he started, but we will all know better what the other fellow thinks, and after all—that is how we learn in this old world. I notice in your issue of April 20 that my friend, L. M. Escue, of Shelby, Ill., takes issue with my other friend, Mr. E. A. Rickard, and one Elmer Rosser, of Gregory County, South Dakota, takes issue with both and gives the Canadian subscriber a little boost on his Clydesdale suggestion, but not to the extent of forfeiting his right to see a little greater virtue in the good old Shire. He hit my old chum from Ohio a little swipe on his Morgan suggestion—which some of us did not think so bad, and now another friend from Noble County, Ohio, looms up in the person of Mr. F. F. Foote, who is no slouch himself when he undertakes to tell us a thing or two about the Morgans. Forty-five years' experience in the stallion business should qualify a man for an opinion, and if he had the advantage of being able to obtain such a paper as the American Breeder during those forty-five years, what an encyclopedia he would be.

Next comes our friend, Lester Beveridge, of Cheyenne County, Colorado, who thinks he has solved the problem for his poor distracted friend in Montana, and wants him to go into the mule business, after admitting that he was successful in raising cavalry horses until he lost or disposed of that first thoroughbred stallion that produced a **"uniform type of government horses."**

Well, boys, everyone for his fancy, but if my neighbor from the North will come down to Salt Lake, I will take him out to lunch and after he is feeling right, I will purge him of the Percheron—the Belgian—the Clydesdale and the Shire idea, and will apologize for my neighbor to the East, Mr. Beveridge, for that mule suggestion of his, and will further suggest to him not to forget the good counsel given by Brother Foote on the Morgans, for if he will not take my advice then I am going to suggest that he places on his memory tablet the admonition given by counsel for the Morgan family. Let me see! I think I left my Montana neighbor after administering the mule and draft horse purgative, and a cream-de-mint to settle the lunch. We have now settled down to smoke a good Elisardo cigar and he says, "I am ready to hear from you." "Well neighbor," says I, "go and buy a Standard and registered trotting stallion—of style, carriage, substance, not less than 1,250 pounds, in stud condition of standard color—must be a square trotter (not pacer) and a sire that will beget square gaited horses. If your range mares have any breeding you will get some quite high class horses—good actors—good steppers, for which there is always a market, and you will get a large percentage of horses suitable for cavalry and artillery. There is always a market for these horses, both at home and abroad. Then again, neighbor, remember you are selecting the greatest all-around horse—(no reflection on my friend Foote and the Morgan), the world has ever known. He is the only horse that has been bringing from across the sea the gold that we have been sending there for our draft stallions and mares for the past quarter of a century or more, and he is the only horse that continues to do it. He is the American member (with his brother Morgan) of the equine race. The poor man's horse that can do all things. The rich man's horse that entertains the kings and princes of the old world. The horse that has sold for more money than any, or all of the breeds mentioned—(with the exception of the thoroughbred possibly), during the last twenty or twenty-five years. He is our horse—the one that has made America famous in the horse world. He will do all that I claim and many more things that I will talk of at luncheon tomorrow, convincing you beyond question that the Standard horse here described is what you want for your Montana ranch."—Jas. Devine, Salt Lake County, Utah.

A NEAR VIEW OF NORTHEAST RANGE HORSES.

To the American Breeder:—I have just returned from a trip to Canada and been looking through my American Breeder papers for the last three months back, as I could not very well have them forwarded to me. Now I want to say a few words on that Montana man's question; in all the several answers, I can agree only with the man who advised the use of a Morgan stud to start with. In his remarks he said that a cross on too large a stud got something that was equipped with legs and head for a sixteen-hundred-pound horse on a ten or eleven-hundred-pound body; he might also have added that as a usual thing it also has brain for a small peanut-shuck.

I have made the trip across country and it sure is a surprise to see the change in horses in Canada now, from what it was five or six years ago; then all the big horses were Clydes or Shires; hardly a Percheron to be seen. Now it is the other way around. It seems that it does not take the Canucks so long as it might to find out which is the most desirable horse to use in a range country, any way. Their complaint of the Clyde is that his colts are meaner to handle than the Percheron, not as good travelers or rustlers, though perhaps an easier keeper where feed is plenty. I may add that from my experience I have found him not to have the bottom of a Percheron or Belgian.

To return to the Montana man again, would say that I think he would have no trouble in getting rid of his geldings as I have ridden through the northeast part of the state for more than four hundred miles this spring looking for some good saddle and pack horse stock and did not see a dozen head that would be suitable for that purpose, although every man I met said he had just what I wanted. When I came to look his bunch over, they were all either all body and no leg or all leg and no body. I, however, saw a lot of good, heavy work horses out there, but good saddle stock was sure scarce. The army remounts would take their best and the balance go to the county buyers. Also some would make good light farm horses, while his fillies would be all right to breed to a good, heavy Percheron. In selecting a Morgan he would get one that is of the blocky kind and not one of those slim, light-built ones.

Now I may be wrong in my ideas of the question, but that is the way I am going to work it myself if I can find the mares, as I have found a place in Canada where I can run a small band for some time yet without being bothered by the settlers. I would like to hear from some of the subscribers who have mares of the kind he has for sale as to what price they would sell for in lots of 20 or 30 head.—J. T. Carpenter, Williams County, N. D.

Note: All advertising will have to go through the proper department.—Editor.

Six Months of Stock Shows and Fairs

Canadian Industrial Exhibition Assn., Winnipeg; A. W. Bell, Secy.	July	10-18
North Dakota State Fair, Fargo; W. L. Van Horn, Secretary	July	20-25
Blue Grass Fair, Lexington, Ky.; John W. Bain, Secretary	Aug.	3- 8
Interstate Fair, St. Joseph, Mo.; H. L. Cook, Secretary	Aug.	20-25
Iowa State Fair, Des Moines; O. R. Corey, Secretary	Aug.	26-Sept. 3
Canadian National Exhibition, Toronto, Can.; J. O. Orr, Sec'y.	Aug.	29-Sept. 14
Ohio State Fair, Columbus; J. W. Fleming, Secretary	Aug.	31-Sept. 4
New York State Fair, Syracuse; Albert E. Brown, Secretary	Aug.	31-Sept. 5
Maryland State Fair, Timonium; James S. Nussear, Secretary	Sept.	1- 5
West Michigan State Fair, Grand Rapids; C. F. Kennedy, Secretary	Sept.	2- 7
Indiana State Fair, Indianapolis; Chas. Downing, Secretary	Sept.	7-11
West Vrginia State Fair, Wheeling; George Hook, Secretary	Sept.	7-11
Nebraska State Fair, Lincoln; W. T. Mellor, Secretary	Sept.	7-11
Minnesota State Fair, Hamline; J. C. Simpson, Secretary	Sept.	7-12
Connecticut Fair Association, Hartford; H. A. Walker, Secretary	Sept.	7-12
Michigan State Fair, Detroit; G. W. Dickinson, Secretary	Sept.	7-18
California State Fair, Sacramento; J. L. McCarthy, Secretary	Sept.	12-19
Kansas State Fair, Hutchinson; A. L. Sponsler, Secretary	Sept.	12-19
Spokane Interstate Fair, Spokane, Wash.; R. H. Cosgrove, Secretary	Sept.	12-20
Wisconsin State Fair, Milwaukee; J. C. Mackenzie, Secretary	Sept.	14-18
South Dakota State Fair and Exp., Huron; C. N. McIlvane, Sec'y.	Sept.	14-18
Colorado State Fair, Pueblo; J. L. Beaman, Secretary	Sept.	14-19
Kansas State Fair Association, Topeka; G. E. Clark, Secretary	Sept.	14-19
Kentucky State Fair, Louisville; J. P. Dent, Secretary	Sept.	14-19
Vermont State Fair, White River Junction; F. L. Davis, Secretary	Sept.	15-18
Illinois State Fair, Springfield; J. K. Dickirson, Secretary	Sept.	18-26
Montana State Fair, Helena; A. J. Breitenstein, Secretary	Sept.	21-26
Tennessee State Fair, Nashville; J. W. Russworm, Secretary	Sept.	21-26
Interstate Live Stock Fair Ass'n, Sioux City, Ia.; Joe Morton, Sec'y.	Sept.	21-26
Interstate Fair, La Crosse, Wis.; C. S. Van Auken, Secretary	Sept.	22-25
Oklahoma State Fair, Oklahoma City; I. S. Mahan, Secretary	Sept.	22-Oct. 3
Missouri State Fair, Sedalia; John T. Stinson, Secretary	Sept.	26-Oct. 2
Tri-State Fair and Exp., Memphis, Tenn.; Frank D. Fuller, Sec'y.	Sept.	26-Oct. 3
Interstate Fair Assn., Trenton, N. J.; M. R. Margerum, Sec'y.	Sept	28-Oct. 2
Oregon State Fair, Salem; Frank Meredith, Secretary	Sept.	28-Oct. 3
Alabama State Fair, Birmingham; S. H. Fowlkes, Secretary	Sept.	28-Oct. 10
Wyoming State Fair, Douglas, Anson Higby, Secretary	Sept.	29-Oct. 2
Brocton Fair, Brocton, Mass	Sept.	29-Oct. 2
New State Fair, Muskogee, Okla.; Emma R. Knell, Secretary	Oct.	5-10
Utah State Fair, Salt Lake City; Horace S. Ensign, Secretary	Oct.	5-10
Virginia State Fair, Richmond; A. Warwick, Manager	Oct.	5-10
Nat. Feeders' & Breeders' Show, Ft. Worth, Tex.; J. A. Stafford, Sec'y.	Oct.	10-17
Alabama State Exposition, Montgomery; Geo. T. Barnes, Secretary	Oct.	12-17
State Fair of Texas, Dallas; W. H. Stratton, Secretary	Oct.	17-Nov. 1
Mississippi-Alabama Fair, Meridian, Miss.; R. M. Striplin, Secretary	Oct.	19-24
North Carolina State Fair, Raleigh; Jos. E. Pogue, Secretary	Oct.	19-24
Mississippi State Fair, Jackson; J. M. McDonald, Secretary	Oct.	26-31
Georgia State Fair, Macon; Harry C. Robert, Secretary	Nov.	3-13
Louisiana State Fair, Shreveport; L. N. Brueggerhoff, Secretary	Nov.	9-14
Arizona State Fair, Phoenix; C. B. Wood, Secretary	Nov.	9-14
Arkansas State Fair, Hot Springs; W. W. Waters, Secretary	Nov.	16-21
American Royal Live Stock Show, K. C., Mo.; T. J. Wornall, Sec'y.	Nov.	16-24
International Live Stock Exposition, Chicago; B. H. Heide, Sec'y.	Nov.	28-Dec. 5
Pac. Internat'l Live Stock Exp., N. Portland, Ore.; O. M. Plummer, Mgr.	Dec.	7-12
National Western Stock Show, Denver, Colo.; F. P. Johnson, Sec'y.	Jan.	18-23

THE BELGIAN HORSE SHOW AT BRUSSELS.

To the American Breeder:—The last Belgian Horse Show in Belgium (the twenty-fourth) took place, as usual, in Brussels last month and was a success from beginning to end. A great many strangers attended the show and buyers were there from the United States, Canada, Argentina, Uruguay, Germany, France, Baden, Russia and Holland. On the Sunday morning the crowd was estimated at 20,000 around the show ring.

The beautiful stallion Indigene de Wisbecq was a favorite from the start of the show and a group of breeders offered 200,000 francs (which means $40,000) for this horse and could not buy it at this price. Last year this horse won $12,000 in stallion fees and premiums; he has done just as much this year.

Germany has been buying heavily again. The Germans like the Belgian horse and buy every year over 24,000 of them. Next as a purchaser comes Russia.

The Belgian breeders are making a pile of money every year and it is safely within the reality to state that they export every year $12,000,000 worth of horses to the various buying countries of the world.

Here is a summary of the awards in the Brussels show:

Champion stallion—Indigene de Wisbecq, 6 years.

Champion mare—Duchess de Bouleloo, 4 years.

Stallions over 16½ hands—1st, Goubert II du Chateau; 2nd, Labourer d' Isaac, by Indigene du Fosteau.

Stallions under 16½ hands—1st, Fanfaron; 2nd, Gaillard d' op.

Stallions 4 years old, over 16½ hands—1st, Satan du Fosteau; 2nd, Druiker d' Hondzocht.

Same, under 16½ hands—1st, Brillant de Inviolata; 2nd, Sondart du Fosteau.

Stallions 3 years old, over 16 hands—1st, Indigene de Croix; 2nd, Indigene de Hognoul.

Stallions 3 years old, under 16 hands—1st, Robert de Corroy; 2nd, Kinet de Viscount.

Mares 4 years old and over—1st, Bella de Plancenoit, by Mont d' Or; 2nd, Micelette.

Best stallion with get—1st, Indigene du Fosteau, 12 years, with 10 prize winners; 2nd, Kleber du Fosteau, 10 years, by Bristol; 3rd, Infernal du Fosteau, 12 years, by Indigene du Fosteau; 3rd, Moustic de Grand Glise, 7 years, by Indigene du Fosteau; 3rd, Melan, 3 years, by Rubens; 4th, Reve de Perwin, 11 years, by Reve d' Or; special, Mouton des Oulnes.

As may be seen, the leading stallion in Belgium is the beautiful Indigene du Fosteau, champion for four years and nine times a blue ribbon winner. There are only a few of the get of this admirable stallion in the United States. We ought to have more of them. Brabaneon, one of the best colts of Indigene had died a few days before the show. This horse had been bought as a 2-year-old for 30,000 francs—$6,000.

This year there were 945 horses in the ring—478 stallions and 337 mares

and fillies. This is the biggest draft horse show that there is in Europe.—Leon Van Meldert.

WHAT DO OTHER READERS THINK?

To the American Breeder:—Discussing Belgian Stallion Show Awards, in your issue of June 20; I think that if number 9, 20 and 64, in this order in the wards (first, second, fourth) are the true Belgian type, then numbers 12, 18, 3 and 5 are another type. Question: Which is the correct type, and what is the matter with No. 3? No. 3 shows less fat and 96-inch heart and 12-inch bone. Is No. 3 coarse in the ankles or shallow in the feet? If not, No. 3 is my choice of this group. Will someone tell us which is the correct type of Belgians.—N. P. Mayhew, Cherry County, Neb.

RENOVATING ALFALFA FIELDS.

To the American Breeder: The surface soil in an alfalfa field usually becomes hard and compact from frequent irrigations (where irrigation is practiced), the repeated trampings of horses' feet and the haying machinery that is used each time the crop is harvested, as well as from the common practice of pasturing alfalfa fields through the winter months with the farm live stock.

The detrimental effects of a hard settled surface soil in our alfalfa fields are not often fully appreciated or even considered, yet it is quite certain that it causes a great loss in the net profits from our alfalfa fields of the state.

First, there is a great loss of moisture that escapes more rapidly from hard compact soil, than from a cultivated soil mulch.

Second, there is a waste of plant food from the leaves, stems and droppings that simply dry up on the surface of the fields, but which could be made available to the crop by incorporating them into the soil by cultivating the fields.

Third, there is a retarded action of the nitrogen fixing bacteria in dry, hard soil, which can be easily stimulated by cultivating the soil and working organic matter, air, and moisture into the surface soil to induce the fiber-roots to develop the nitrogen nodules to build up soil fe ility.

Fourth, there is greater injury from cut-worms, grasshoppers and other insects, if their hibernating places are not disturbed; cultivation will destroy many.

It pays to renovate the alfalfa fields; it conserves moisture.

It increases hay production; it tends to making finer and more leafy hay; and it more rapidly increases soil fertility for crop rotation.

The object is to keep the soil from becoming hard and compact and not to "split" the crowns or mutilate the shoots, an idea that is often advanced as to the point to be accomplished.

The alfalfa fields should be renovated the first thing in the spring as soon as the frost is out of the ground and the soil is dry enough to pulverize nicely.

The spike-tooth renovator, the Deere Alfalfa Cultivator, and the spring-tooth harrow are all good tools to use, the steel harrow is often used to fine and level down the soil between the crowns after it has been stirred up by the heavier cultivating tools.

Do a thorough job each spring on the old alfalfa fields, do not put it off till the shoots are started, if possible, and do not expect to renovate between crops, as time and the press of other work will not permit you to do it and the injury to the fast growing shoots will doubtless not be made up from any advantage you will secure from renovating between crops.—Philo K. Blinn, Alfalfa Specialist, Rocky Ford (Colo.), Experiment Station.

Diagnosing Ills of Horses

Lesson VI; Disturbances of the Digestive Tract

Disturbances of the digestive tract are not only brought about through errors in diet but may be caused by chilling the organs from drinking cold water when heated. Such experiences often give rise to cramping of the digestive organs of a most distressing character. On account of the tendency for the pain to be intermittent in character and very excruciating, the term spasmodic colic has been given to this type of intestinal disorder.

It will be observed that there are few cases of simple spasmodic colic for the reason that if the disease con tinues any great length of time it will cause a suspension of the digestive processes and a case of flatulence will result.

Many times pains of a spasmodic nature are observed in the early part of the difficulty only to be followed by gastric or intestinal fermentation.

Spasmodic colic uncomplicated, while very distressing for the time being, rarely kills an animal. Many of the marvelous cures thought to be brought about through the administration of simple nostrums are directed toward this form of colic.

Frequently the trouble subsides as promptly as it came without treatment which is inclined to take place as soon as the disturbed circulation is equalized.

The symptoms of spasmodic colic are quite characteristic. The animal suddenly betrays pain, switches its tail, jerks up its hind legs, and throws itself on the ground suddenly and with violence.

The animal uses no discretion while attempting to lie down, but may throw itself against objects and by so doing bring about serious injury. After rolling vigorously the animal may get up and with the exception of a drawn appearance of the abdominal muscles for a few moments—denoting cramping, may appear all right.

Often the animal experiences sufficient relief that it may partake of food, but in a few minutes the pains return frequently with greater violence than before. When the animal recovers the pains gradually assu .e less severity and are farther apart. It is quite a common notion among laymen that this as well as other forms of colic are due to the animal's inability to pass its urine and this idea is augmented by the fact that frequently when the spasms have pretty much subsided the animal will urinate. This is taken as proof that the previous distress was occasioned by retention. In spasmodic colic there is lack of bloating early, the symptoms being as above outlined.

There is no question but what internal parasites may be responsible for some of the more mysterious cases of colic, but unless the parasites can be demonstated it makes it difficult to attribute the abdominal pains of certain puzzling cases to worms. Numerous parasites inhabit the various parts of the digestive tube, some of which even make their escape through the walls of the gut and penetrate other organs. The palisade worm is capable of passing through the wall of the bowel and entering the blood vessels and seemingly has a preference for those that supply the bowels with blood. The presence of these worms within the vessels invites the formation of a blood clot at that point, which of itself may become sufficiently large to interfere with the circulation through the parts or by a portion of the blood clot breaking off it may float into still smaller vessels and there suddenly interfere with the circulation through that portion of the bowel.

Such a state of affairs would bring about colicky pains, the exact cause of which would be very difficult to positively determine. It is only when several of these puzzling cases occur in a community known to be infested with this type of worm and the parasites are found in the dead subject on post mortem examination that the student of veterinary medicine becomes able to even hazard a good guess in the matter of the cause of the symptoms the horse manifests. Again it has been found in these infested districts that horses that die from other causes very often have worms of this class in the blood vessels. This has been demonstrated so frequently that the mere finding of the worms in the vessels is no proof that they were responsible for the death of the animal.

Parasites of another class often induce a catarrhal state of the bowel leading to indigestion, unthriftiness and colicky pains. As a rule the animal so infested will present symptoms that will aid materially in reaching a correct diagnosis. Besides a general appearance of unthrift in the way of a long lusterless coat of hair and distended abdomen in spite of good feed and care, then will frequently be observed parasites among the experiments. The rectal or pin worm causes the adherence of a whitish substance around the anal opening.

Tape worms in horses are not very prevalent, but in the dog they are quite common particularly in larger cities. The larvae of the bot fly are nearly always found in the stomach and frequently in the duodenum or first part of the small intestines, particularly in horses in country districts. These larvae maintain their position by attaching themselves to the mucous lining of the organs where they remain several months when they release their hold and are passed out with the foeces. While it might appear that the presence of numbers of these parasites would be harmful to the health of the horse it is rare that such harmful effect can be demonstrated. While the perforation of the mucous membrane takes place in numerous places at the points where they attach themselves, yet it is very difficult to show that such perforations produce death.

As a rule other and more serious lesions are found upon holding an autopsy upon animals that have succumbed to some form of colic. It is possible for these parasites to accumulate in such numbers immediately about the opening of the stomach into the bowel so as to interfere with the passage of food into the latter organ. The harm that these parasites may cause has been greatly overestimated by laymen and it is simply cruel and foolish to punish a horse ill with colic by forcing all sorts of non-sensical stuff down its throat with the hope that it will either kill or cause the parasites to release their hold. These parasites are capable of resisting solutions for hours that if administered to an animal would cause that animal death through the corroding action of the drug. Various displacements of the bowels occur that are difficult too diagnose with certainty and are very serious complications, frequently terminating the life of the animal. These displacements assume different forms. In some cases the bowels become twisted, which many times occurs in the large intestine. Cases are rather frequently observed wherein the small intestine becomes tied in a knot, some of which are very complicated. Again through some act of violence the intestine may be thrown through its supporting mesentery causing a rent in the latter and a twist in the bowel. Cases have been found where the intestine passed into itself—telescoped. Hernias of different characters occur which consists of some portion of the bowel passing through an opening where it becomes imprisoned, its circulation greatly interfered with and gangrene or death of the imprisoned portion results.

All of these conditions are very serious and are difficult to satisfactorily diagnose and on account of the nature of the anatomy and relation of the parts are very difficult to relieve.

They are usually brought about by the animal assuming some other position than the standing position. It might be said that the great majority are induced by rolling. We think it is safe to say that the great majority of cases that die from some supposedly form of colic in reality die from some of these last mentioned accidents or complications. There is no doubt but what many a horse has started in with a light attack of indigestion which might have subsided without treatment and in the act of rolling to gain relief a twist of the bowel was brought about which caused the death of the animal.

So many of these conditions are found on autopsy and the state of affairs could not have been relieved in the majority of cases had the condition been positively known which is proof that there is no certain cure for colic. The individual who assumes to have a cure-all for colic is wholly ignorant and uninformed of the true condition that really is capable of killing in spite of the best medical skill.

Wherever an animal suffering from an engorged stomach, flatulence of either stomach or bowel, or impaction of the bowel is relieved of these conditions within a reasonable time, yet the animal does not secure relief from the pain but continues to suffer several hours after the initial attack, it is time to suspect some of the above mentioned complications are present and that the owner will soon be one animal short. While this does not occur in every instance yet it is quite the rule. As a general rule if a horse does not experience relief from the cause of the pain within a reasonable time that animal is going to die. Either a displacement has occurred or inflammation of the bowels is developing, which latter in the horse is one of the most fatal diseases affecting the digestive tract known. Protracted cases of colic should be viewed with alarm.

HORSE 41 YEARS OLD IN PARADE.

The twelfth annual Work Horse Parade in Boston took place on Memorial Day, and proved to be the largest and biggest parade yet held. There were over 1,700 horses in line, and they ranged in age from an unweaned foal three months old to two champion old horses aged, respectively, 40 and 41 years. In the Old Horse Class there were 65 entries, and the gold medal was awarded to a little mare aged 34. She is owned by a family who also owned her dam, and the period of service covered by the two is fifty years.

This "Old Horse Class" was started by the Boston Asociation and has proved to be a great success wherever it has been tried, and especially at County Fairs. An old horse in this sense, is one who has been ten years or more in the service of the same person or concern.

Despite the great length of the parade the judging was done so quickly by an ingenious and novel system that it was finished and the last horse went home in less than four hours. The Boston parade was the first to be given in this country and all the other parades in the United States and Canada have been patterned after it.

Partially Personal

Huerta announces that he is going to Europe to stay until his country "calls" him. There are those in Mexico who would like to—but Huerta didn't leave enough money in the treasury for even an ante.

"Jake" Mohler, Kansas' new secretary of agriculture, is claimed by the "short grass" section of the state, his boyhood home having been Osborne County, the upper end of the famous Solomon Valley.

The students of agriculture, University of Missouri, get out a live magazine called the College Farmer.

Prophets of free trade woe in the wool business are not using in their literature the reports from Texas, where sheep men are said to have enjoyed the most successful season in the history of the state. Texas sheep men are buying more and better rams than usual, for further flock improvement.

Elks attending their national convention are reported to have spent a million dollars in Denver, where the convention was just held. As this is the Benevolent Protective Order of Elks, all this million dollars was paid out to the needy and worthy people of Denver.

"I went motoring with that magician, and what transformation trick do you think he pulled off? He made the automobile turn turtle."—Baltimore American.

O. L. Thisler, Chapman, Kas., recently had a team of mules, top buggy and harness stolen from his barn; some motor car thief trying to work himself up.

The "rooster-swatter" movement is said to have "spelled chicken dinner" for a quarter of a million roosters, one day last month.

Secretary Corey of the Iowa State Fair expects to have some jumpers from Canada entered in the hunter class of the state fair horse show. A Canadian jumper recently tied the world's record of seven feet, four inches, held by Shamrock.

The Fort Worth Live Stock Reporter is putting out the best looking sheet in its history.

Prof. E. A. Trowbridge of the Missouri College of Agriculture was one of the judges at the recent Columbus, Ohio, horse show.

Through a combination of the banking and live stock interests of El Paso (all the same thing in Texas) 180,000 of old Mexican sheep were secured in a single purchase.

Nobody has used the term "swan song" in referring to the last report of Kansas' retiring secretary of agriculture. In fact, that last report was one of the most cheering of the many inspiring and optimistic utterances for which Secretary Coburn long ago became "justly famous."

The live stock judges at the Montana State Fair this year are Harry W. Vaughan, Ames, Ia., horses; Thos. Mortimer, Madison, Neb., beef cattle; George W. Sisson, Jr., Potsdam, N. Y., dairy cattle; Thomas Brink, Salem, Ore., hogs and sheep.

SUCCESS WITH IMPROVED METHODS.

To the American Breeder:—I am sending you a photograph of my breeding establishment as I travel on the road. Note my box on back end of the buggy. In the box I carry a five gallon can of sterilized water and under the seat I carry all the other necessary appliances that are needed in artificial breeding purposes. My jack is getting plenty of work. I only breed once a day and am settling mares right along.—C. L. Clayton, Clay County, Kas.

FIFTY DOLLAR PRIZE FOR JUDGING SADDLERS.

To the American Breeder:—A new departure in the way of a stock judging contest will be staged this year in the Missouri State Fair. The American Saddle Horse Breeders' Association offer a fifty dollar silver trophy to the best judge of saddle horses in the 1914 Missouri State Fair Saddle Horse judging contest.

This prize is limited to Missouri farm boys under 22 years of age, or students in the Missouri College of Agriculture who have made passing grades and who are residents of the state of Missouri.

Contestants will be required to judge at least four classes of saddle horses which shall include five and three-gaited horses at the halter and in action.

Contestants will be allowed fifteen minutes in which to examine each class and afterward will be allowed three minutes each in which to state their reasons for their placing of the animals.

The judges of the contest will be experienced horsemen.

The work of the contestants shall be graded as follows:

Correctness of placings.....60%
Reasons for placings 40%

All young men who wish to compete must apply to the secretary of the State Fair, John T. Stinson, Sedalia, Mo., for entry blanks before September 17th, 1914.

The contest will be held on Tuesday, September 29, 1914, of the State Fair week, and contestants should report to the superintendent in charge, Mr. Howard Hackedorn, in the Live Stock judging pavilion, at 9 o'clock on that day.

The name of the successful contestant will be inscribed on the trophy, after which the trophy will be placed in the Department of Animal Husbandry of the State University for a period of not less than six months, and then it will be delivered to the winner.

The winner of the trophy for any one year will be debarred from competition for any trophy thereafter offered by the American Saddle Horse Breeders' Association for judging saddle horses.—E. A. Trowbridge, Missouri College of Agriculture.

WHAT IS THE CALIFORNIA LAW?

To the American Breeder:—I have a Percheron stallion and bred two mares for a neighbor of mine. Bred them by insurance. After breeding same the mares changed hands and both parties refuse to pay for service of the stallion. Both mares have colts. How can I collect? J. B. McLane, Tehama County, Cal.



STOCK AND OUTFIT OF SUCCESSFUL CLAY COUNTY, KANSAS, BREEDER.

Improved Horse Breeding

The other day in a certain community 40 mares were investigated, and only three of that number had colts this year. Further examinations revealed the fact that several of these mares were infected with the germ called "Barrenness in Mares." In this same territory, a few years ago, the per cent of foals was very large. One of the breeders who had previously congratulated himself upon having a very high per cent of foals was located at this particular place, and he is now complaining seriously. He had always thought that he knew all there was about horse breeding, but during the last year or two he has changed his mind. Even breeders who always have had excellent results are very liable to have a few diseased mares come into their communities before they know it. One of the chief dangers of this trouble is that the mares may be fat and sleek, and yet be in terrible condition.

This infection is scattered throughout the country, more and more each year. Some communities are practically free from it now, but when a mare is shifted or changes hands from one locality to another, and consequently is taken from one stallion to another, the results are almost certain to be a spreading of the disease. The breeder who has been successful perhaps has some natural aptitude that has been a benefit to him in his work. A little more education will only make that breeder more proficient and will further improve his results.

Breeders will have an opportunity to see diseased mares dissected and be taught to distinguish these mares, at the Graham Scientific Breeding School, which will be held in this city beginning Monday morning, August 10, and lasting one week, with day and night illustrated lectures and demonstrations. If the average breeder would spend a little more money in traveling and not do quite so much labor, he would be better off. If a breeder is the cause of scattering disease in his community, the damage is just as great if done through ignorance as it would be done intentionally.

When these diseased mares are dissected any school boy can see the difference between a mare having the disease called "Barrenness in Mares" and a healthy mare. Each student is expected to take part in the actual work of making examinations on mares, both dead and alive. The school visits the horse markets where large numbers of barren mares are easily found upon which to make demonstrations. Horse and mule barns are also visited in giving the lectures on breeds and types of horses. We do not believe there is an unprofitable hour from the time the school starts Monday morning until Saturday night.

It is remarkable how the students enjoy it. They do not seem to get tired. They work together like a band of brothers. There is plenty to learn, yet it is all condensed so that practically every sentence delivered by the instructors, every lantern slide, every disease demonstration, and in fact all of the work is interesting because it is plain. It is right in line with the work that the breeders have been employed in. Those who have had much experience in the breeding business can usually associate every case explained by some particular circumstance they have had. This helps them to remember the work.

No breeder should stay at home because the weather is warm, as the lec-

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A Safe, Speedy and Positive Cure for
Curb, Splint, Sweeny, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.
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Every bottle of Caustic Balsam sold is Warranted to give satisfaction. Price $1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address
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that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with



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Shying horses all suffer from diseased eyes.
"VISIO" will convince any horse owner that it is the best remedy for defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our money back GUARANTEE.
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No. 10—Heavy, high-test rawhide center, from butt to tip; rubber lined double waterproof covered, 6½ feet long. Prepaid for $1.00.
No. 11—Special Stock Yards Horseman's Whip, full length, 10½ feet; lash 5 feet; 12 nickel ferrules. Prepaid for $1.00.
Order by number.
BREEDERS' HARNESS & WHIP CO.,
Williamson Bldg. Kansas City, Mo.

ture room will have electric fans and everything will be made just as comfortable as possible. In fact, it will be a recreation for everyone who attends. A number of breeders have said that it was difficult for them to come to Kansas City because their wives or their mothers objected to their coming, as they expected to be thrown in with a class of rough "stud horse men." These same wives and mothers have been thankful that there was a school conducted as clean as the Graham Scientific Breeding School. No profane or vulgar language is used, and the men who attend go home better and cleaner in every respect. If the wives of the prospective students knew what these men would learn (other than horse breeding), while they were at the school, not one of them would object. A lot of material is given that every man should be familiar with. At every term of school remarks have been made concerning the exceptional character of those in attendance. In fact, from the first day there seems to be a union among the men. They all sleep at one hotel and leave their doors open from one room into the other, among themselves, without ever thinking of watching their property. They are together all of the time and form lasting and helpful acquaintances. It is very common for one breeder to write to another and arrange between them to be at the school at the same time. They frequently help each other in numerous ways after they go home. A great deal of trading is done among themselves—buying and selling.

There is only one way that breeders can attend this school and that is to get ready and come. If everyone would wait until the "signs" were just right, many who have graduated, and returned time and again for new work and review, and profited thousands of dollars thereby, never would have started. Practically every industrious man has something he can do all the time. Breeders who have attended at the later terms have said that they had been expecting to attend for several years but never could get ready to leave home.

For further information address the Graham Scientific Breeding School, 225 West Twelfth Street, Kansas City, Mo. —Adv.

WHAT TO DO IF RABIES IS SUSPECTED.

To the American Breeder:—There is always so much excitement in a community where a rabid dog appears, or when anyone is bitten by a dog which is supposed to be mad, that many foolish things are done, and oftimes the case is so complicated that it is difficult to arrive at a correct diagnosis at any later time.

For instance, a man was bitten by a common house dog and pulled out a big six shooter and blew out the brains of the animal, rendering a certain diagnosis impossible.

No supposedly rabid dog should be killed if it is possible to confine him where he will not be a menace to the community. If the dog lives a week after biting a person, he was not rabid. This in itself is sufficient to make a person feel safe. If, however, the dog dies some days later after showing symptom of rabies, then an examination of the brain by a competent Pathologist is the only method of making a reliable diagnosis.

The head should be removed from the body and packed in ice for sending away. It is not feasible to attempt to remove the brain because of the danger of fatal inoculation from injury to the hands.—I. E. Newsom, Colorado Agricultural College.

The wagon question on a farm where one wagon must serve many purposes is always an important one. Have you ever seen a better solution offered than that of the American Wagon Company, which has a half page ad. in this issue of the Melrose convertible wagon bed?

Live Stock, Hay and Grain Market Review

Now comes some hopes of driving horses making good again. They have been out for a good five years and the pleasure seeking rich class has been reveling in automobiles of various sizes and cost. But they have a craving now, in fact a desire to sit behind a fancy team of driving horses. Such a turnout would attract more attention. J. W. McKinty, western buyer for the largest horse firm in New York City, says that his firm is receiving a number of inquiries for fancy driving coach and cabs and that it is practically impossible to fill the orders. This country has not been breeding that class in the past five years, and it will take considerable demand to persuade breeders to engage in that line again. Drafters, rugged workers, all-purpose light work horses and mules are the class that have met popular demand recently and are higher in price now than they were a few years ago.

The general trade in both horses and mules remains quiet, as is likely to be the case up to the middle of August, or later. General crop conditions at that time will be a big factor in broadening the early trade. In the past two weeks about the only horses selling were a few loads to Eastern buyers, and some all-purpose workers to local sources. Scalpers continue to pick up odd head. The volume of business could more than double and then not be very brisk.

Some feeders are accumulating supplies of both horses and mules on the theory that by late fall feed of all kinds will be plentiful and thin horses higher in prices. Kentucky and Eastern Missouri have been unusually dry, and unless relief comes soon feeders in those sections will not fatten many mules. Eastern Missouri is the biggest feeder of mules in the world, and next to it is Kentucky, but at the present time things look unfavorably for feeding.

Buyers from the south will be in the market for mules again by September, and no large supply is promised for them.

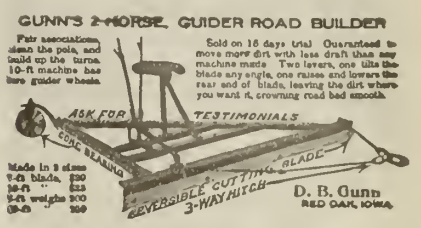
Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Horses—	
Drafters, 1700-pound extra quality.	$250@300
Drafters, good to choice	200@245
Drafters, fair to good	150@185
Chunks, good	150@1[illegible]
Chunks, fair.	95@1[illegible]
Southerners, good to choice	130@150
Southerners.	65 up
Mules—	
13½ to 14½ hands	$100@135
14½ to 15½ hands	130@165
15½ to 16 hands	160@210
16½ or better	200@265

Record July Cattle Prices.

Since the first of the month cattle prices have been advancing and in the past two days new high record prices for the month were paid. Some 1,433 pound steers sold at $9.75 in Kansas City, and up to $10 in Chicago,

BINDER ATTACHMENT with corn harvester cuts and throws in piles on harvester or in winrows Man and horse cut and shock equal with a corn binder Sold in every state. Price only $20.00 with fodder binder. J. D. Borne, Haswell, Colo., writes: "Your corn harvester is all you claim for it; cut, tied and shocked 65 acres milo, cane and corn last year." Testimonials and catalog free, showing pictures of harvester. Address PROCESS MANUFACTURING CO., Salina, Kansas.



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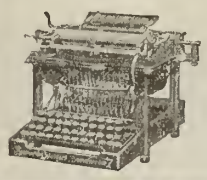
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Don't Send Me a Cent until I have proved to you on your own Hogs, Sheep, Horses and Cattle that SAL-VET will stop your losses from stomach and intestinal worms—the cause of 90 per cent of all live stock troubles. There is nothing better than SAL-VET that you can give your stock to make them thrive better—look better—get more good out of their feed and make them less liable to contract disease. Read these two letters; we have thousands like them:—

"My hogs have done extremely well since I started to feed SAL-VET to them. I have quite a bunch of pigs to which I am also feeding SAL-VET; have never had pigs do any better since I have been in the business."—GEO. HACKELROTH, Forest Green, Mo.

"Four weeks ago, just before I received my SAL-VET, I offered to sell my hogs for $25.00, but could not do so. Since feeding SAL-VET they have passed many worms, some of them ten inches long, and they made such gains that I would not sell them now for $150.00."—DAN. MacALONEY, Tenney, Minn.

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I Take All the Risk Just fill out the coupon—tell me how many head of stock you have, and I'll promptly ship you enough SAL-VET to last them 60 days. You simply pay the freight on arrival—feed it as directed and at the end of 60 days report results; then if SAL-VET has not done all I claim, I'll cancel the charge—you won't owe me a cent. Address

PRICES

40 pounds	$ 2.25
100 pounds	5.00
200 pounds	9.00
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Ship me enough SAL-VET to last my stock 60 days. I will pay the freight charges when it arrives. If at the end of 60 days I am not satisfied you are to cancel the charge.
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both as high as in July, 1912. Grass fat steers from Greenwood county, Kas., sold up to $9, a new high record for July by 15 cents, and on the quarantine side the top was $8.85, a new high record for all times. In butcher cattle lines straight heifers sold as high as $9.60, and mixed grades up to $9.65, also new high records for the seventh month of the year. In the past two weeks the market has appreciated 40 to 60 cents and is the highest of the year by a good margin. In Chicago where the bulk of the steers are from feed lots they are selling at $9 to $9.75, and in Kansas City fed steers are bringing $8.75 up. Western wintered grass steers are bringing $8.50 up, and the straight grassers on the quarantine side are selling at $7 to $8, and the meat fed grades at $8 to $8.85. Killers say that the average cost of cattle was never higher at this time of the year, and that the shortage, if continued, will cause still higher prices. There is no indication that grass fat cattle will move in any considerable numbers before the latter part of August and feed lot supplies are nearly exhausted. Predictions are rampant on the future trend of the market. Many believe that $12 steers will materialize before November, and that Christmas beeves will sell as high as 15 cents a pound. A high enough position is indicated for the fall market to insure those who summer feed to make a big profit.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.25@9.75
Good to choice steers	8.75@9.20
Fair to good steers	8.25@8.70
Common to fair steers	7.50@8.20
Meal fed, choice	8.50@9.25
Meal fed, common to fair	7.85@8.45
Quarantine steers, fed	8.25@8.85
Quarantine steers, grass fat	6.25@8.20

Butcher Cattle Prices Higher.

In addition to the new high records paid for heifers and mixed grades, grass fat cows sold up to $7 and a good many brought $6.25 to $6.75. At those prices killers cannot get enough cows to fill orders. Common cows are bringing $5 to $6 and "canners" from $4.25 up. Few bulls are offered and where available they are ready sale at $5 to $7.25. Veal calves are bringing $7.50 to $10. The entire price list for all killing cattle is high and dressed beef men are of the opinion that at no time this year will any kind of butcher cattle be plentiful. There will be no August to December movement of range cows, and the few thin cows offered will be taken back to the country for stock purposes.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$7.25@7.75
Good to choice	6.50@7.20
Fair to good	5.75@6.45
Common to fair	5.00@5.75
Canners	4.25@5.00
Heifers—	
Choice	9.00@9.60
Good to choice	8.25@9.00
Plain to fair	7.50@8.25
Common	6.00@7.25
Veal calves	7.00@10.00
Bulls	5.00@7.50

Scarcity of Feeding Cattle.

Hardly any stock or feeding cattle are offered. The few bunches moving are of plainer grades, and buyers are in Texas trying to round up big bunches for fall delivery. Nearly the entire Texas calf crop is under contract and it looks as though those who intend to feed cattle this winter will have to pay pretty stiff prices to get anything decent. This past week choice feeders sold at $8 to $8.35, and the same class of stockers $7.75 to $8.25. Common stockers are quoted as low as $6.75. Stock cows, heifers and stock calves are scarce. It is going to be a hard market to buy on and an easy market to sell on for the next ninety days.

The following quotations are for the various grades of stock and feeding cattle:

Selected feeders	$8.00@8.50
Good to choice feeders	7.75@8.00
Fair to good feeders	7.00@7.50
Plain to fair feeders	7.00@7.50
Selected stockers	8.00@8.35
Good to choice stockers	7.50@8.00
Plain to fair stockers	7.00@7.50
Stock calves	7.00@8.50
Stock cows	5.25@6.75
Stock heifers	5.50@7.50
Milch cows	60.00@110.00

Highest Hog Prices This Year.

Hog prices are at the highest level this year, selling up to $9 in Chicago and $8.90 at Missouri river points. In March, Chicago and St. Louis reported tops above $9 but at that time no Missouri river market sold hogs above $8.85. The long continued decrease in receipts of hogs which made the year's decrease to date nearly 900,000 at the five Western markets is responsible for the advance in prices. Pork is in much better demand now than a month ago, and packers are facing three months of meager receipts with stocks of cured meats unusually low. There is an immense pig crop and prospects for a big corn crop, too, conditions that should make far lower prices for hogs during the winter packing season. Packers, however, will have to store pork product this winter to bring their stocks of meat up to normal proportions and it will be late winter before they get hog prices to $6, a price they are predicting for January. Scarcely any pigs are coming and serum makers are paying $8.50 to $12 a hundred pounds in order to get enough 40 to 80-pound pigs for test purposes.

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week.
Monday	$8.20@8.50	$8.20@8.45
Tuesday	8.25@8.57½	8.20@8.45
Wednesday	8.30@8.57½	8.15@8.40
Thursday	8.40@8.67½	8.15@8.40
Friday	8.45@8.70	8.20@8.42½
Saturday	8.55@8.67½	Holiday
Mon., July 13	8.60@8.90	.....
Tues., July 14	.....	.....

The following quotations are for hogs:

Choice, 250@300 lbs	$8.75@8.90
Choice, 200@245 lbs	8.75@8.90
Medium weight	8.65@8.85
Light weight	8.60@8.80
Common to fair	7.50@8.65
Stags	6.50@8.65
Boars	4.90@7.75

Record July Lamb Prices.

Arizona, Idaho and native spring lambs are selling up to $9, a new high record July price. This is slightly below the level in June, but July prices are usually $1 to $1.50 under the June level. Wool and pelts are both in urgent demand and mutton is selling high for this season of the year. Sheep are scarce. Practically the entire Texas supply has been marketed and it is too early for Northwest flocks to move. There is a good inquiry for stock and feeding sheep but practically nothing is offered. Good prices are indicated for the fall trade in thin sheep. Fat lambs are quoted at $8.50 to $9 and sheep $4.50 to $5.50.

Wheat Prices Down Again.

The first week in July wheat prices were up 3 to 4 cents but in the past few days receipts have been heavy and the market sagged to the low level of the season. Heavy receipts are indicated for the next few weeks. White corn is selling at the highest level of the season on a strong milling demand. Feed corn is comparatively low. Oats are in liberal supply and low in price. Chop, rye, barley and bran are about the same in price as two weeks ago.

New Wheat—	
No. 2 hard	72 @79
No. 3 hard	70 @77
No. 2 red	70½@72½
No. 3 red	70 @71½
Corn—	
No. 2 white	76 @79
No. 3 white	75 @77
No. 2 mixed	70 @76
No. 3 mixed	69 @69½
Oats—	
No. 2 white	37 @38
No. 2 mixed	34 @36½
Rye	61
Chop	1.34
Bran	85 @86
Barley	45 @52
Shorts	1.10 @1.16

Hay In Liberal Supply.

New hay is offered in liberal supply and prices are lower. Demand is not as broad as a year ago, because pasturage is better. The second crop of alfalfa was good.

Quotations are as follows: Alfalfa new, choice, $13@13.50; No. 1, $11.50 @12.50; standard, $9.50@11.; No. 2, $7@9; No. 3, $5@6.50; prairie choice, new, $13@13.50; No. 1, $12@12.50; No. 2, $10@11.50; No. 3, $6@9.50; timothy choice, $15.50@16; No. 1, $14 @14.50; No. 2, $12@13.50; No. 3, $8.50 @11.50; clover mixed, choice, $15.50 @16; No. 1, $14@15; clover, choice, $10@11.50; No. 1, $8.50@9.50; straw, $5@6; packing hay, $5@6.

GREAT PLAINS STATIONS CO-OPERATING.

Thomas Cooper of Fargo, N. D., director of the North Dakota agricultural experiment station, was elected president of the Great Plains Co-operative Experimental Association which held its ninth annual session at Hays, Kas., this month. W. A. Peterson, superintendent of the station at Mandan, N. D., was elected vice-president and E. C. Chilcott, agriculturist in charge of dry land farming operations for the federal department of agriculture, secretary. The next annual meeting will be held in Mandan, N. D. A winter meeting also may be held in Washington, D. C., in January.

RAISING BEEF IN THE SOUTH.

The following paragraphs summarize the important features in Farmers' Bulletin 580, just issued by the United States Department of Agriculture under the title of "Beef Production in the South."

Eradicate the tick on the farm.

Good pastures are essential for profitable beef production.

Plant pasture grasses over the waste lands.

Use pure-bred beef bulls for grading up the native stock.

Always select the best heifers for breeding purposes.

Use the coarse fodder, straws, and the stalk fields for wintering the breeding herd.

Wean the calves when pastures get short. Put them in the cornfield and pea fields while weaning and teach them to eat cottonseed cake or cottonseed meal.

Raise and finish beef cattle on the same form when possible.

A mixture of cottonseed meal, cottonseed hulls, and alfalfa hay is a good ration for fattening calves.

Silage is the best roughage for fattening any class of cattle.

More care is necessary in feeding calves than in feeding grown cattle.

At the present prices corn silage is a cheaper and better feed for fattening beef cattle than cottonseed hulls.

Hulls and cottonseed meal make an excellent feed for short feeding period, but do not produce good gains on cattle after the third month.

It is not entirely satisfactory to use corn stover as the sole roughage.

When Johnson-grass hay costs $10 and hulls $7 per ton it is more profitable to feed the hulls alone.

Summer feeding on the pasture is usually more profitable than winter feeding.

Finishing cattle early in the summer is usually more profitable than finishing them later in the season.

Fattening steers on grass and cottonseed cake is nearly always more profitable than grazing them without feed.

Pound for pound cold-pressed cottonseed cake is not equal to the common cottonseed cake.

The use of a small amount of corn in addition to cottonseed cake has proven profitable for feeding steers on grass.

The Bulletin, with its twenty pages and nine illustrations, also contains an interesting discussion of the various breeds most servicable in grading up the native stock. It is sent free on request.

Everybody Buying STEEL Shingles!

All over the country men are tearing off **wood, prepared paper, tin** and **galvanized** roofs. Nailing on "Tightcote" **S-T-E-E-L.** For only "Tightcote" STEEL can be **rot-proof, fire-proof** and **rust-proof.** It had to come, for this is the **Age of Steel.**

Cheaper, Too!

Curiously enough, **Steel** shingles, as we sell them, direct from factory to user, are now **cheaper than wood.**

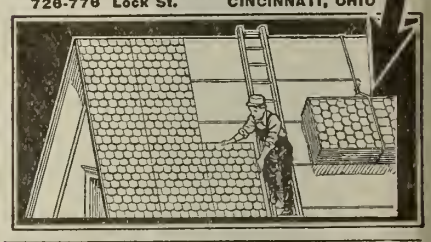
And easier put on. Instead of nailing one at a time, these shingles go on in big clusters—100 or more at once. No extras needed. No special tools. No expert workmen. No painting required. Yet **practically no wear-out** to an Edwards Steel Roof.

How Rust Was Done Away With

Ordinary metal roofing rusts. This doesn't. For we invented a method which, applied to Open Hearth Steel, absolutely prevents rust from getting started. Called **The "Edwards Tightcote Process."** It does the work like magic, as 125,000 users are glad to testify.

Edwards' Offer We not only sell direct, but pay the freight. No such roofing bargain ever offered before. Just send Postal for Roof Book No. 776 Then see if you ever before saw such prices and such quality. Please give size of roof, if you can.

THE EDWARDS MFG. COMPANY
726-776 Lock St. CINCINNATI, OHIO



ALFALFA
AS A MONEY MAKER

Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Building, Kansas City, Mo.

Farm for Sale or Trade

160 acres 5½ miles south of La Cygne, Linn County, Kans.; 75 acres in cultivation; 5 acres new land cleared; balance timber and pasture; 20 acres more can be farmed by cutting off timber; 20 acres more by tilling. About 60 acres of farm lies on bottom, balance upland. New 4 room house; barn room for six horses; 6 acres hog pasture; plenty of water. Price $5,000. Could use good automobile, draft stallion, jack or other live stock. Terms to suit.

J. B. RING, Louisburg, Kans.

FOR SALE BY OWNER AT BARGAINS

Four choice irrigated alfalfa ranches in Colorado, with excellent water rights, adjoining good ranges; taken on debts. Call on or write

Wm. M. SPRINGER
621 Gas and Electric Bldg., Denver, Colo.

160-ACRE FARM FOR SALE.

Creek bottom land; improved; 40 acres in alfalfa; fenced hog tight; black sandy soil; good water; good buildings. Priced for quick sale at $10,000; will carry $3,500 at five per cent.

H. H. BURNS,
Argonia, Sumner County, Kansas.

240 ACRES
Good Oklahoma Land.

Improved; good water. Good reasons for selling. Price $16,000.

J. H. BRAKHAGE,
Rte. 1, Box 43, Lahoma, Okla.

WANTED—To hear from owner of good farm for sale. Send description and cash price. **D. F. Bush, Minneapolis, Minn.**

Fighting Cholera in Fifteen States

Plan of Co-operation Includes National, State, County, Township and Farm Forces

Under the recently passed act of ongress, which grants $500,000 to ombat hog cholera, department agents ill co-operate closely with the state uthorities to prevent and eradicate he disease by the use of anti-hog-holera serum and quarantine meth-ds. Approximately $20,000 will be pent during the coming year in each xperimental area selected. Thirteen f the counties, where the work is to e carried on, have been picked out, nd in twelve of these the work has lready been started. Two other coun-ies are to be selected within a short ime. The twelve counties selected or the present campaign, where the ork has actually been begun, are as ollows:

Idaho—Twin Falls district.
Illinois—Kankakee.
Indiana—Montgomery.
Iowa, Dallas.
Kansas—Marshall.
Kentucky—Henderson.
Michigan—Branch.
Minnesota—Renville.
Missouri—Pettis.
Nebraska—Gage and Johnson (part f each.
Ohio—Allen (and adjacent town-hips).
Tennessee—Maury.

The thirteenth county, where the ork will soon be inaugurated, is De-atur County, in Georgia.

Method of Procedure.

1. Assemblages of farmers will be rranged in each school district of each xperimental area. The objects sought nd methods of procedure will be ex-lained and full information given re-arding the nature, cause and preven-ion of hog cholera. Further educa-ional work to be carried on through he distribution of publications and hrough personal interviews with armers.

2. Organization of farmers will be nade as follows: A leader for each ownship and nine associates will be elected. Each associate will have as-igned to him an area of about four ections for survey. The men in this rganization will serve as volunteers vithout salary, and they will keep the Jnited States inspector in charge ad-ised concerning the conditions in the ounty and will also aid in securing he required statistics of the hog in-lustry.

3. A complete survey will be made o determine the number of hogs raised and the number lost from hog holera prior to beginning the work nd during each year thereafter dur-ng the life of the project.

4. Sanitation and quarantine, com-rising the regulation of shipment of ogs into and out of the experimental rea, the regulation of shipments within the area, the quarantine of in-fected places, destruction of dead ani-nals, cleaning and disinfection of railroad chutes, pens and leading places, etc.

5. Immunization and treatment with anti-hog-cholera serum, serum to be applied to hogs on infected farms and on exposed farms by the United States inspectors in such manner as they may deem necessary.

6. All anti-hog-cholera serum re-quired is to be produced and supplied by the Bureau of Animal Industry, provided that in the event of the in-ability of that bureau to produce suf-ficient serum the several states will supply the deficiency insofar as pos-sible without cost to the United States Department of Agriculture.

Organization.

The state agricultural college or other state agencies will place in each experimental area at least one quali-fied man who, with the co-operation of the United States inspectors and county advisers, will carry out the necessary educational work, organiza-tion of farmers, and make an accurate survey of the area.

The live stock sanitary board or other proper state authorities will place in each area at least one qualified deputy, who will enforce, insofar as state laws will permit, such sanitary and quarantine meas-ures as may be deemed necessary by the United States Department of Ag-riculture.

The United States Department of Agriculture will supply one supervis-ing field inspector. The functions of this officer will be to visit the various experimental areas, to advise with the United States inspectors in charge of field work regarding the methods of work, thus giving to each inspector the benefit of observations made in other areas, and thereby increasing efficiency.

A force located in each experimental area will be maintained as an inde-pendent unit reporting directly to the Chief of the Bureau of Animal In-dustry. The inspector in charge, one or more assistant inspectors and one clerk. The size of the organization in each area will be governed by the necessities of the case and the funds available.

Laboratory force in each district will include one inspector in charge, with the necessary scientific assist-ants, clerks and laborers, to prepare sufficient anti-hog-cholera serum to supply the needs of the various field inspectors.

Co-operation.

The United States field inspector in charge in each experimental area is to be recognized as the local leader of the project. The official, by con-ference with the local state repre-sentatives, will arrange for the de-tails of carrying out educational work, quarantine and sanitation, and other activities. State officers shall at all times be furnished with full informa-tion concerning the general progress of the work, and the United States field inspector in charge shall like-wise be advised concerning the gen-eral progress of the work and results of work carried on by the local state officers.

The salaries and expenses of em-ployes of the United States Depart-ment of Agriculture will be borne en-tirely by that department, and similar expenses of state officers will be paid by state or local agencies.

Regulation for Preparation, Sale and Importation of Serums and Similar Products for Use with Do-mestic Animals.

The department under the appropria-tion act for the fiscal year ending June 30, 1914, was given power to reg-ulate the preparation, sale and impor-tation of viruses, serums, toxins and similar products intended for the treat-ment of domestic animals. The hog cholera act provides that not less than $50,000 of the total may be used in this work.

The purpose of the work is to pro-tect farmers from serums that are either dangerous, under strength, or ineffective. The general method of procedure will be to inspect establish-ments which do an interstate busi-ness in serums, toxins, etc., and to issue a license to those that comply with the regulations. In addition the department will take samples and test serums in interstate commerce and rec-ommend revocation of licenses or pros-ecutions where the facts warrant. In the case of imported serums, admis-sion will be refused any serum which is found to be dangerous or spurious.

If you want a camera, or if you have ever thought of getting one for the pleasure it would give to the children, now is the time. Read the advertise-ment of the Eastman Kodak Company.

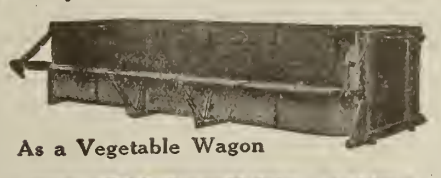
Shipped for $1.00
"15 Wagons in One"
On 15 Days Trial

Sell it to Yourself And Save $20



As a Hay Rack (Steel Ladder Free)

Put a Melrose Bed on your own gears and you've got **15 wagons in one!** Use the same bed, **in different positions,** for hauling grain, hay, straw, stock, hogs, sheep, coal, vegetables, poultry, tile, fruit, fertilizer, wood, brick, lumber, cotton, boxes and barrels—yes, or a picnic crowd!



As a Vegetable Wagon

One Wagon Bed for Every Purpose!

This wonderful invention saves time, money, health and hard work, every day in the year. Does away with lifting racks and beds on and off—makes extra racks and special beds unnecessary.

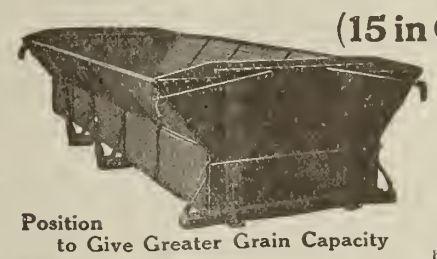


As a Grain Tight Bed

Change in 2 Minutes Without Tools

So simple that any farm boy can easily make the change from one position to another in 2 minutes without tools. No rachet, springs, gears or cogs to get out of order.

Melrose Convertible (15 in One) Wagon Bed



Position to Give Greater Grain Capacity

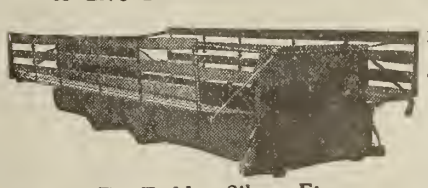
The Melrose has tremendous strength and enormous load capacity. All metal parts are finest wrought steel—no cast iron. Steel bound and braced! Not a single nail in the entire bed! Grain-tight matched flooring bottom.

WHAT OTHERS SAY

Henry Pinkerton, Modesto, Ill.—"I could not afford to be without one for double the amount."

J. S. Hyde, McFall, Mo.—"I wouldn't take $50 for it if I couldn't get another.

Hundreds of other equally enthusiastic endorsements.



For Fodder, Silage, Etc.

Will You Risk One Dollar?

We take the big end of the risk. We ship the Melrose complete on receipt of $1.00 as evidence of good faith. Pay the balance at the end of 15 days if thoroughly satisfied.

If its own merits don't sell it, ship it right back at our expense and we'll refund your dollar.

The low price will surprise you.



Hauling Corn in the Ear

Send the Coupon for Book

and details regarding our special $1.00 trial offer.

18



Same Position Showing Shoveling Board

American Wagon Co.,
305 Lincoln Ave., Dixon, Ill.

Please send Melrose "15 in 1" Book, and details of $1.00 Trial Offer.

Name.....

Address.....

Dealer's Name.....

Address.....

A Department For Women

SEEKING A WOMAN COUNTY ADVISOR.

Following the re-employment of Pettis County's (Missouri) farm advisor, after one term of successful effort, the Pettis County women in the Homemakers' Club are working for a woman county advisor. The club has raised $500, and is asking the county to put up an equal amount. The $1,000 thus raised would pay the woman advisor's salary for the first year.

Pettis County was the first county in the United States to appoint a man farm expert wholly at its own expense. S. M. Jordan, known as "the corn man," was selected, and after one year of service he was re-elected for a 3-year term at $3,000 a year. Of this sum the county pays $1,500, the state $750 and the federal government $750.

REMOVED SIX DEVELOPED EGGS; HEN O. K.

To the American Breeder:—Poultry surgery has not advanced to a degree that we can recommend it for this, that or the other thing, but you may be interested in an operation which was recently performed at this institution.

A Black Langshan hen remained on the nest most of the time and appeared to be broody. In removing her from the nest we could feel what appeared to be eggs in the body cavity and we could apparently hear the shells grinding against each other as we would knead the abdomen. She was a contest hen and we knew if this was the condition that it would probably be only a question of a short time until the hen would die and that it was our duty to try to discover and relieve the trouble if possible.

We proceeded to make an incision in the abdomen of the hen and to our surprise, found six normal and hard shelled eggs in the body cavity. They had developed and passed from the oviduct to the body cavity instead of being laid in the natural way. The body cavity was filled with these eggs. Six were removed and the incision sewed up, and at the present time, the hen seems to be in good health. Just what the outcome is going to be, we cannot tell, but the hen appears to be healthy and happy. We believe the operation is going to be successful, and result in saving the life of a valuable hen. However, it may prove to be another case of where "the operation was a success but the patient died." This is the third similar case that we have had with Black Langshans. The other two hens died before we discovered the real trouble. But we operated on this one and several days have passed and the hen seems active, healthy and happy. The external stitches have been removed and the wound healed and the hen is apparently well at this time.—T. E. Quisenberry, Missouri Poultry Experiment Station.

TREATMENT OF TUBERCULAR SPUTUM.

To the American Breeder:—All persons who are intimately associated with cases of active pulmonary tuberculosis cannot be too cautious about the proper disposition of tubercular sputum. Such sputum should always be received in cups containing a five per cent solution of lysol or carbolic acid, or, in the absence of these, milk of lime. Paper cups, made especially for this purpose, may be used and subsequently burned. Soiled handkerchiefs and cloths should be immersed for one hour in lysol or carbolic acid (5 per cent) and then boiled before they are handled. The patient should be provided with a set of dishes for his exclusive use, and these should be kept by themselves and boiled thoroughly after each meal. Remember that tuberculosis is a preventable disease, but that its control can be accomplished only by the strictest observance of sanitary precautions.—Walter G. Sackett, Bacteriologist, Colorado Experiment Station.

ALUMINUM KITCHEN UTENSILS.

I am so often asked questions in regard to the beautiful and useful metal aluminum that I have in this short article, gathered together a few facts that may be of interest.

* * * * * * * *

Aluminum is probably one of the most sanitary metals for use in kitchen utensils that we have, but the person using such utensils should be careful not to put lime in these vessels for lime will attack the metal and slowly dissolve it, but above all do not use lye in connection, for lye will attack the aluminum furiously and dissolve it in a short time.

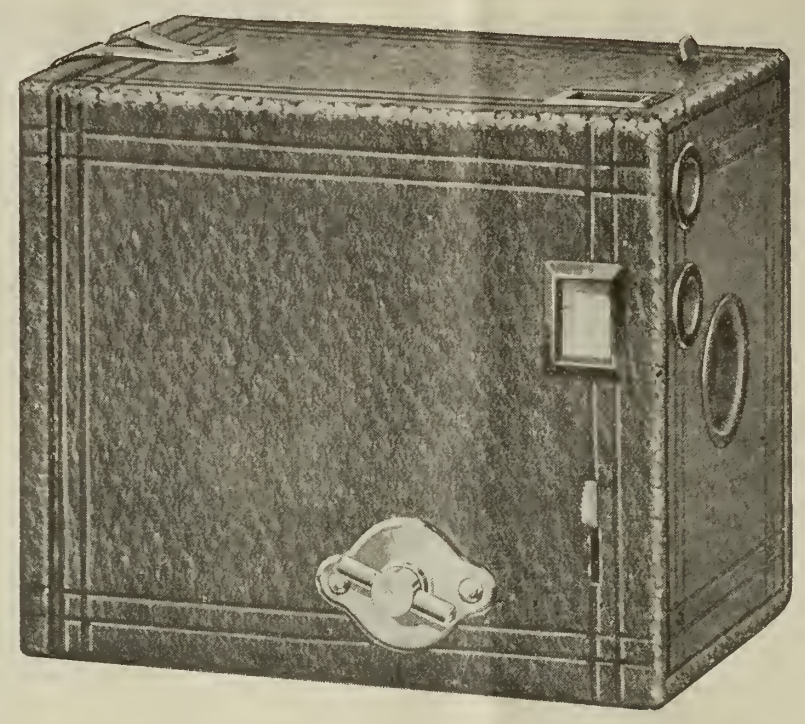
Here is a little hint in connection with the use of aluminum in the household that you will find very useful. If your silverware has become badly tarnished and you wish to avoid a great deal of rubbing and hard work in connection with the cleaning of it, put it in an aluminum dish and pour water over it and boil it in the water for a short time and it will come out bright and clean.

The aluminum pan will be slightly discolored after this process but it may be easily cleaned with any of the scouring soaps.—J. W. Lawrence, Colorado Agricultural College.

CONSOLIDATION OF RURAL SCHOOLS.

I am a farmer's wife and have a
ways been vitally interested in ou
school system, especially the rur
school. With two daughters and a so
to educate and fit for their lifewor
it has, indeed, been of immense im
portance to me. We came to th
country several years ago whe
the rural school was very poor; th
equipment was small, the term wa
short and inexperienced teacher
taught the children. I spent man
worried days thinking of better ad
vantages for our children, who wer
rapidly reaching the age at which
school meant so much to them.

In our community we needed a ra
ical change and needed it immediatel
Because of this an agitation was star
ed for a consolidated school, which a



The little camera that does big things.

Price, $1.25

No. 0 Brownie

MADE by Kodak workmen in the Kodak factories, it is accurate, reliable, efficient. So simple that anybody can make good pictures from the very start and is economical to operate, the film cartridges for eight exposures costing but twenty cents.

The No. 0 Brownie has an automatic shutter for snap-shots and time exposures, a carefully tested meniscus lens, and has two view finders, one for vertical and one for horizontal exposures. The pictures are 1⅝ x 2½ inches, the same size as those made by the famous Vest Pocket Kodak. Like all the Brownies it loads and unloads in daylight with Kodak film cartridges. You can do your own developing and printing (without a dark room if you like) or your dealer will do it, or have it done for you.

With each camera we give without any extra charge a complete manual of instructions and a year's free subscription to our monthly photographic publication "Kodakery"—a beautifully printed and delightfully illustrated 32 page magazine that is full of helpful hints to the amateur photographer. You can take good pictures. It is part of the Kodak service to help everyone of its customers to successful results.

Ask your dealer to show you the No. 0 Brownie or write us for catalogue of Kodaks and Brownies.

EASTMAN KODAK CO., ROCHESTER, N. Y., *The Kodak City.*

hat time was new in the west. Fortunately, in our community were a umber of broad-minded and intelligent men; they were all interested in he betterment of our schools. At irst it was slow work, but so is every eform. However, by the continuous fforts of those interested, by a series f special meetings, private talks to he opposition and with the aid of a rogressive county superintendent, ve at last succeeded.

In our little country village of holes we now have a consolidated chool which is a source of pride and atisfaction to the community. Our chool house is a fine modern building, warm, clean and comfortable. t has large, well-lighted class-rooms nd all modern conveniences. Three ompetent teachers have charge of the chool. At the present time this school as eleven grades; we expect to add he twelfth in a short time. A large arn has been erected for those who rive, and everything has been done or the best interests of the children.

Three districts combined to build his school house. Any parent living n the new district will tell you that onsolidation is the only satisfactory ettlement of the rural school problem. The best feature of all is that the xpense is but very little more and hat the boys and girls of school age re in their own homes. We feel that ve have settled in a very wise way ne of the many trying problems that he farmer has to meet.—Mrs. T. R. Davidson, Wayne County, Neb.

Editor's Note: The above letter, ent to the Nebraska Farmer, was ublished by that paper, which awarded a prize to Mrs. Davidson for writing t.

THE EGG SPECIAL STARTS.

Points in the vicinity of Manhattan, Kas., and west, will be covered in the latter part of this month and the early part of August by the government egg car, which aims to show merchants how to candle, grade and ship eggs, and farmers who raise poultry, how to produce eggs which will keep, and how best to get eggs to market. H. L. Shrader, representing the department of agriculture and Frank E. Mussehl, representing the Kansas State Agricultural college, are traveling with the car as demonstrators.

PATTERNS FOR WOMEN AND CHILDREN.

SPECIAL ANNOUNCEMENT. We will forward, on receipt of 5c, the Summer number of the Home Dressmaker, illustrating the latest embrodery designs, as well as hundreds of designs of garments for Misses, Women and Children, and containing two pages of hints on Home Dressmaking.

9976. Girls' Dress with or without chemisette. Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3½ yards of 44-inch material for an 8-year size. Price, 10c.

9988. Girls' dress with or without tunic. Cut in 4 sizes: 8, 10, 12 and 14 years. It requires 3½ yards of 40-inch material for an 8-year size. Price, 10c.

9841. Ladies' Apron. Cut in 3 sizes: Small, medium and large. It requires 3¾ yards of 36-inch material for a medium size. Price, 10c.

9975. Ladies' kimono or lounging robe. Cut in 3 sizes: Small, medium and large. It requires 4⅝ yards of 36-inch material for a medium size. Price, 10c.

9991. Ladies' dressing sack. Cut in 3 sizes: Small, medium and large. It requires 1⅞ yards of 27-inch material for the one-piece style, or one embroidered or hemstitched scarf 27 by 60 inches. For the style illustrated in the large view, it will require 3¼ yards of 27-inch material of 5⅞ yards of 14-inch flouncing for a medium size. Price, 10c.

9289. Child's rompers. Cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2½ yards of 36-inch material for a 6-year size. Price, 10c.

9969-9967. Ladies' costume. Waist 9969, cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. Skirt 9967 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 9½ yards of 27-inch material for the entire dress. This calls for TWO separate patterns, 10c FOR EACH pattern. The skirt measures about 1¼ yards at the lower edge.

9979. Ladies' dress with or without chemisette. Cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6 yards of 36-inch material for a 36-inch size. Price, 10c. The skirt measures 1⅜ yards at lower edge.



Pattern Coupon.

In ordering patterns, be sure and fill in name and address plainly, also number and size of pattern desired.

No.....Size.....
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Address all orders to Pattern Department, American Breeder, 225 West Twelfth Street, Kansas City Mo

The Fundamentals of Breeding

LESSON VIII; INTENSIVE BREEDING

By H. W. Vaughan of the Iowa Agricultural College

The advantages of intensive farming have been widely discussed for a number of years. Intensive farming is farming on a small scale, but doing it perfectly, hence realizing the largest possible return on a moderate investment.

Intensive horse production, as discussed here, is similar to intensive farming. It means the ownership of one or two pairs of high-class brood mares, preferably pure-breds, which are used to do part or all of the farm work, and which are given the very best care and attention. They are bred only to high-class stallions of the same breed as themselves, and during pregnancy they are well cared for, well fed, and not overworked. They foal on clean bedding in a clean stall, or at pasture, and the foals are immediately treated to prevent navel ill.

The foals are given the best of care and are halter broken as early as possible and made gentle by proper handling. After weaning they are kept growing and in due time their education to harness or under saddle is accomplished in a careful and complete manner. This is intensive horse production.

The first costs under this plan are not necessarily less expensive than where a large number of the average kind of brood mares are kept. Good brood mares cost considerable, but they are the only kind on which large profits may be made. If this plan seems impracticable because pure-bred mares are expensive, why not reach the same end by buying a weanling or yearling filly of the desired breed, growing out this filly to breeding age, and retaining her best filly foals for breeding puproses? In this way, given a few years time, it is easily possible to get on an intensive footing with as many mares as are desired.

We have had enough of the average kind of horse production in this country; in fact, far too much of it. Until late years, pure-bred draft mares were so scarce they were almost curiosities. Enough time has elapsed, however, to demonstrate beyond all doubt that it pays much better to keep a few extra good brood mares and raise carefully a few good foals, than it does to keep a lot of cheap mares and produce a lot of cheap horses without feed enough to give any of them a fair chance.

Put your money in fewer mares, give the foals the best of feed and care, and you will make more money than you will by raising ten or a dozen average foals in the average way. Today the tendency is for the cheap horse to bring less and for the good horse to bring more than ever before. The automobile and auto-truck have helped to bring about this condition and the writing on the wall should be heeded.

Not long ago the writer visited a farm where he was shown a sixteen-year-old grade draft mare of good type and individuality. On the same farm were five good mares all out of the aged mare mentioned. Other of her numerous progeny had been sold at good prices. The mare had made the farmer money and was still making it, for at the time of this visit she had a fine filly foal by her side. But the owner was not fully satisfied. "Think how much more money I would have made," said he, "if I had begun with a pure-bred, registered mare. If the old mare had been pure-bred and registered, the value of every one of her foals would have been easily doubled, and it wouldn't have cost a cent more to raise them." The lesson to the young breeder is clear—start right, even if it means starting slowly by buying one young registered filly and from her building up a breeding stud of fine mares.

The farms of the Middle West and East are well adapted to the intensive plan of horse production, because most of the farms are not large and usually the teaming is done by the owner himself or by one or two hands who are always under close observation. On big farms, with incompetent and ever-changing help, if valuable brood mares are kept they are liable to be injured if used to do the farm work.

The writer is not one of those who advocate keeping brood mares in idleness. They will be healthier and will produce stronger foals if worked in moderation. The plan should call for working the brood mares, but not working them as hard as we work geldings or mules. Let them earn their board and board them well. They may be worked well up to foaling time if care is taken not to back them to a heavy load, or put them to a hard strain, or turn them quickly.

Mares have been hurriedly unhitched and unharnessed while cultivating corn or doing some other moderate work, and have foaled thrifty, well-developed foals, the equal of any. But such mares were well fed and cared for during pregnancy and should be given as long a vacation on pasture after foaling as the farm work will permit.

The most profitable horse breeding in France, Belgium, England, Scotland and America is done on the intensive plan on farms of moderate or small size by farmers who are good, practical horsemen, with a taste for doing things well. There is ample room in the United States for much more horse raising on this plan, and we have always had too many inferior mares, too many cheap stallions, and too many cheap horses hunting buyers.

A LESSON IN POULTRY BREEDING.

Early Laying Pullets All From High Producing Hens.

To the American Breeder: — The Missouri State Poultry Experiment Station has fifty or more pullets which have been hatched this year that began to lay when they were about four months old or a few days over that age. In every case, no matter what variety of poultry it happened to be, the first pullets of that variety to begin to lay came from the highest laying hens of that variety or hens among the highest layers. We have never had an early maturing and early laying pullet come from a medium or poor laying hen. In every case thus far, no matter what the variety is, the pullets which began to lay when they were from four to five months old were bred from the high laying hens of that variety.

The thirteen which began laying first were: 3 Buff Leghorns; 2 Barred Plymouth Rocks, 4 White Leghorns, 1 Ancona, 1 Campine, 1 Rhinelander and 1 White Orpington. The Barred Rocks and White Orpington weighed from three and one-half to four pounds each, while all others weighed from two and one-half to three and one-fourth pounds each. The first eggs weighed from one to one and one-half ounces each. The eggs are practically perfect in development. A Buff Leghorn pullet weighing two and three-fourths pounds began laying at four months and five days old, and a Barred Rock pullet weighing three and three-fourths pounds began laying at four months and nine days old. These were the first two pullets to lay.

The pullets are fed good wholesome food, but not forced or stimulated. The food given consists of equal parts of cracked corn and wheat as a grain feed, and equal parts of corn meal, wheat, bran and shorts fed in hoppers, and we mix one pound of fine salt to every hundred pounds of the mash. The colony houses are kept along the edge of a corn field or on fresh ground in an orchard. We give the young stock sour milk or buttermilk if it is available, and if not, we add ten pounds of dry beef scraps to every hundred pounds of their dry mash. At three or four o'clock in the afternoon, we feed a moistened mash, all the birds will clean up in twenty or thirty minutes. We use the same dry mash as we feed in the hoppers, but moisten it with sour milk or water. We, of course, supply grit, oyster shell and charcoal by mixing them with the feed or by feeding separately. Pure water is before them at all times. Recently in culling 6,000 head of young stock raised in this way to an age when some of the pullets had begun to lay, we found only two birds that appeared to be anything like out of condition.

From our observation and records we have concluded that the season of the year in which a chicken is hatched has much to do with its growth and development, and the length of time that it will require for a pullet to mature and begin to lay. That is, pullets hatched in the early spring will begin laying in a shorter length of time than full sisters to them hatched in the summer or fall. We believe that pullets hatched in February, March and April will begin laying in a shorter length of time than their full sisters hatched in May, June and July in this climate.—T. E. Quisenberry, Director National Egg Laying Contest.

SECOND BROOD OF THE ARMY WORM COMING.

To the American Breeder:—It is nearly time for the second brood of the army worm to appear. Millions of the first brood escaped destruction and when full fed, entered the ground and changed to the chrysalis stage from which the moths are now emerging in countless numbers.

The army worm moth is light brown in color and nearly an inch long. When it rests, it folds its wings so as to extend lengthwise of the body. During the day these moths collect under the leaves, in wheat shocks, and other protected places away from the bright sunlight. At sundown they begin to fly about. After dark they are attracted to lights in great numbers. These moths will lay their eggs on grasses and other green crops and as soon as the eggs hatch the young caterpillars of the second swarm of army worms will begin to feed on and destroy the crops.

The Missouri College of Agriculture does not regard the situation as especially serious, because, while there are immense swarms of moths now laying their eggs, there are also equally great numbers of insects which are parasitic on caterpillars of the army worm type waiting to destroy the young worms when they hatch. These insects in former years have successfully controlled the second and third broods of army worms by killing them off in enormous numbers. Usually, however, the second brood has not been as large as it promises to be this year judging by the number of moths. So we may expect trouble in certain restricted regions. The weather plays an important part in army worm control. Cool weather is favorable for the army worm and hot weather is unfavorable.

It is desirable that farmers in the regions where the army worm was so destructive early in the season should be on the look out and if they appear in large numbers in any particular field take immediate steps to keep them from spreading.
summer.—Leonard Haseman, Missouri Agricultural Experiment Station.

PERCHERON SHOW AWARDS.

On the opposite page appear the pictures, entry numbers and measurements of the winners in the American Breeder Percheron Stallion Show—class for aged animals. Each judge voted by number for his choice for each of the 12 positions, and when the votes were counted, 32 stallions out of 62 entered (57 shown) had received one or more votes for some position. Figuring by averages the rank of the highest 12 contestants was determined, as shown. Below are given the names (and owners' names) of all the stallions which appeared in this "show"—photos published May 20.

No. 1—Janissaire 42201, Geo. W. Rogers, Graham County, Ariz.
No. 2—Retroulet 43134, F. H. Anderson, Custer County, Nebr.
No. 3—Kessler 40175, D. L. Husted, Grant County, Okla.
No. 4—Iman 80531, Geo. F. Kern, Saline County, Kans.
No. 5—Koprin 88608, Wm. Rogers, Lincoln County, Mo.
No. 6—Juno 46106, F. H. Lohmeyer, Gage County, Nebr.
No. 7—Lord Byron 30976, C. Bransman, Fall River County, S. D.
No. 8—Duke 75319, A. H. Huggins, Rock County, Wis.
No. 9—Gerant 55950, John Barnes, Moultrie County, Ill.
No. 10—Pandore 74153, R. S. Brookings, Stark County, N. D.
No. 13—Marion H. 82860, W. B. Howe Jr., Morton County, N. D.
No. 14—King 82858, W. B. Howe Jr., Morton County, N. D.
No. 15—(Second) Gourdon 62694, Frank Thom, Nobles County, Minn.
No. 17—Karamba 87247, Joseph Perisho, Edgar County, Ill.
No. 18—Heliopolis 68458, W. H. James, Christian County, Ill.
No. 19—Inclus 80810, Bruce Saunders, Jackson County, Kans.
No. 20—Rutilan 43815, Stanley Turner, Tom Green County, Tex.
No. 21—Bonjour 51161, Perry Sherman, Lewis County, Wash.
No. 22—(Eighth) Brittain 77647, H. H. Burns, Sumner County, Kans.
No. 23—Sully's King 35491, Bert Taylor, Tillman County, Okla.
No. 24—(Third) Arvor 87364, Adam Becker & Son, Jefferson County, Kans.
No. 25—Gentry 43326, Guy Gillenwaters, Howard County, Ind.
No. 26—Damon 63312, Scudder & Kelehner, Knox County, Ill.
No. 27—(Ninth) Geraudel 42652, Rudolf Bergmann, Cass County, Nebr.
No. 28—Goodenuff 34776, Wm. Raetz, Geary County, Kans.
No. 29—Reciprocity 66710, James Osborne, Montrose County, Colo.
No. 30—Valerien 47985, A. T. Worsley & Sons, Union County, Iowa.
No. 31—Rex 62995, W. T. McLaughlin, Calhoun County, Iowa.
No. 32—Bosquet II 19933, S. E. Hinds, Clay County, Kans.
No. 33—Quinet 56993, Anderson & Bicknell Co., Moultrie County, Ill.
No. 34—(Sixth)—Primo 49686, C. F. McClanahan, Page County, Iowa.
No. 35—Ned De Wolf 45643, R. R. Pittis, Harrison County, Ohio.
No. 36—(Fifth) Jockey 60420, W. W. Ferguson, Delaware County, Ohio.
No. 37—Teddy 43114, J. B. Mulford, Potter County, Pa.
No. 38—Horace 78267, W. M. Lee, Polk County, Iowa.
No. 39—Galopin 53275, Gunder Formo, Ramsey County, N. D.
No. 40—King Crom 49928, W. L. Crom, Kanabec County, Minn.
No. 41—Lorraine 52754, Ben H. Kuennen, Fayette County, Iowa.
No. 42—Ira 44293, W. J. Lanphear, Medina County, Ohio.
No. 44—Bob Aron 66647, Lewis & Stewart, Fayette County, Iowa.
No. 45—Bolivar Stamp 61772, Lewis & Stewart, Fayette County, Iowa.
No. 46—Caesar 56408, G. S. & A. M. Ewbank, Woods County, Okla.
No. 47—Commodore 60635, M. D. Brown, Dunn County, N. D.
No. 48—La Austin 66723, J. S. Whiting, Brown County, Wis.
No. 49—(Eleventh) Romeo 53548, Fruin Bros., Iroquois County, Ill.
No. 50—Albette 77805, B. Langenhorst, Morton County, N. D.
No. 51—Romer C 71050, E. R. Stoutemyer, Livingston County, Ill.
No. 53—Gargantua 83458, J. R. Alexander, Parke County, Ind.
No. 54—(Seventh) Cendrot 42824, A. J. Hatteberg, Ford County, Ill.
No. 55—Koutelas 93610, C. H. Watkins, Perkins County, Nebr.
No. 56—(Tenth) Vacherof 57282, T. H. Terry, Saline County, Kans.
No. 57—Pierrot 57954, B. W. Stufft, Somerset County, Pa.
No. 58—(First) Jury 86581, S. H. Shively, Wabash County, Ind.
No. 59—(Fifth) Klenfac 91082, S. H. Shively, Wabash County, Ind.
No. 60—Jonville 85127, Nicholas Schmitz, Valley County, Mont.
No. 61—Moliere Jr. 27762, H. A. Thomas, Ada County, Idaho.
No. 62—(Twelfth) Galetas 64798, W. H. Billeter, Wayne County, Nebr.

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Home of the Iowa and International Grand Champion FARCEUR 7332 (72924), the greatest Belgian stallion in the world today. He is proving an excellent stock horse. Send your good mares to him and raise the best. Always a select lot of stallions and mares for sale at prices that cannot be beat for high class, sound, 2,000 to 2,500 pound horses.

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Four farms, all adjoining; 7 large barns.
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and one Shire. They range in age from 1 to years; all sound and heavy boned; weighing fro 1,800 to 2,200 pounds. There are 17 stallions and mares. I will also sell my herd stallion, Jupite 65723, coming 5 years old; weight, 2,200.

These stallions are all sold under a guarantee t be 60 per cent foal getters. I have four year old that weigh 2,200; 2 coming 3 that weigh 1,800. Ca sell a good ton stallion for $750; sound and righ in every way; some a little higher, and some lowe I will sell at a bargain to early buyers. I hav both imported and home bred PETER J. EGGERS, DENISON, IOWA.
Stallions and mares of all ages for sale.



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The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.

A BRAND NEW IMPORTATION!

I was in France and Belgium all through May, making early, careful sele tions from the best stallions and mares to be found. These are now at n barns and ready for sale, along with some desirable American bred anima It is a good time to buy.

LONZO McCLAIN & SONS, LIMA, OHIO.

ABORTED ONE TWIN; CARRIED OTHER FULL TIME.

To the American Breeder:—I have a mare that was heavy in foal last winter. Broke young mules and horses with her, thinking it would not hurt her. Three months ago she aborted a mule colt without hair. We rested the mare for two weeks and tried to breed her again but she refused. Now the last month she began to make a bag. Some said, "She will have another colt," and sure enough on June 18 (when her time was up) she dropped another mule colt. It is not very large, but strong and full of life. Have bred the mare again as she seems to feel good. Turned both in pasture. Have you ever heard of a similar case. Have been in the horse and mule business for years, but never heard of a case like this.—John M. Mischke, Knox County, Nebr.

BELGIAN, SHIRE AND PERCHERO STALLIONS

and mares, also Standard bred sta lions and mares, $200 and up. E. Hamilton & Sons, Garden Grove, I (Mention this paper). 23 miles S. V of Charlton, Ia., 82 miles south of D Moines, Ia., at Leroy.

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The best importation we ever mad is now in our barns ready for inspe tion. The mares include some of t best fillies that came out of the Perch this year. See what we have befo buying elsewhere. **Address Hart Bro Osceola, Iowa.**

Percheron Stallion

For sale. Registered; black; 8 yea old; large bone; good disposition and sure breeder. Has booked over $1,4 this year. Must sell and will sacrifi

WALTER ALLEN,
DUNLAP, Peoria County, IL

Winners In The American Breeder Percheron Show

(Stallions Four Years Old and Over---List of all Entrants on Page 12)



No. 58—(First), Height, 69; Heart, 89; Bone, 11½.



No. 15—(Second), Height, 67; Heart, 90; Bone, 12.



No. 24—(Third), Height, 69; Heart, 95; Bone, 10¾.



No. 36—(Fourth), Height, 70; Heart, 96; Bone, 11.



No. 59—(Fifth), Height, 72; Heart, 91; Bone, 12½.



No. 34—(Sixth), Height, 69; Heart, 90; Bone, 11¼.



No. 54—(Seventh), Height, 64; Heart, 92; Bone, 11⅛.



No. 22—(Eighth), Height, 70; Heart, 92; Bone, 12.



No. 27—(Ninth), Height, 66; Heart, 84; Bone, 11½.



No. 56—(Tenth), Height, 68; Heart, 96; Bone, 11½.



No. 49—(Eleventh), Height, 68; Heart, 92; Bone, 11½.



No. 62—(Twelfth), Height, 73¼; Heart, 93¼; Bone, 12.

Questions and Answers

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

Sign Your Name and Address to all Questions.

1187—MASCULINE MARE—I had a mare to lose her colt at foaling time last April, a year ago. I worked with her all the year breeding her and trying to get her in foal, but failed to do so. I commenced on her this spring and bred her and now I have her with foal. I want to know what is the matter with her, or if any of the subscribers ever had anything of the kind. She will tease a mare that is in heat the same as a stallion and will mount them and ride them the same as a stallion when they are out in the corral.—Idaho Subscriber.

REPLY—Such mares are usually shy breeders. You may have trouble with her at later times. Better results would probably be had by using a stallion with effeminate character. Her habit of riding other mares may interfere with her carrying the colt safely, and a wise precaution would be to keep her away from other mares in heat.

1188—BLINDNESS IN HORSES—Is blindness in horses contagious? Do the conditions of stables cause blindness? Ten years ago I brought into my stable a three-year-old mare. She soon developed periodical or moon blindness and at the age of seven years lost her sight entirely. Since she has been in the stable three colts at the age of two years have gone blind, also two mares at the age of five years went blind after a period of moon blindness. The stable is well ventilated. The light is such that small newspaper printing can be easily read, but very little direct sunlight is admitted. The light is admitted at right and left of horse's head, and at rear. The horses face a wall at 12 feet distance. These horses were not related to each other.—Indiana Subscriber.

REPLY—It cannot be said that blindness in horses in a general way is contagious. There are several diseases of the eye that are the result of weaknesses which may be transmitted from parent to offspring. Periodic ophthalmia is generally regarded as one of those diseases. Some states bar from service stallions affected with this malady for the reason that it is thought to be a weakness capable of being transmitted. Your inquiry presents a puzzling problem for the reason that your stabling arrangements do not appear to be seriously at fault. We believe in your particular case it would be necessary to thoroughly canvass the ground before a satisfactory answer can be made. Take the matter up with your state veterinarian and perhaps sometime when he is in your neighborhood he can make an investigation that will be of help to you.

1189—INDIGESTION—I have a mare four years old that has colic every few days and bloats on the right side. Generally is sick for two or three hours. She lies down most of the time, and rolls some, but not much. As soon as the bloat leaves her she goes to eating. She eats very greedily. Am feeding her four quarts of whole oats three times a day when I work her; am going to get chopped oats for her right away; am also feeding her a condition powder. She has a breaking out on her sides, but not bad; has a fine colt six weeks old. Please tell me what is wrong with her, also what to do for her.—Idaho Subscriber.

REPLY—Your mare is troubled with indigestion and unless you set about correcting the conditions responsible for these attacks you will perhaps lose her some time during one of these periods of sickness. To begin with you will need to arrange the grain ration so it cannot be eaten so greedily. A good plan is to arrange a feed box with a slanting bottom and a partition extending down far enough so as to leave a crack under it so that the animal can work the grain slowly through this space. Put the feed on one side of the partition and allow the animal to eat from the other. This arrangement will cause the animal to eat slowly and masticate better. Perhaps a better way would be to mix the grain ration with cut hay so as to compel the animal to grind it well before swallowing. Your suggestion about substituting crushed oats is a good one. A few months' run at grass in the event you can spare the animal would be of great help in overcoming this trouble, which, if not corrected, soon will become chronic and incurable.

1190—DISEASED MARE—My neighbor has a 12-year-old mare that raised one colt four years ago and has been bred for two years and failed to settle. He asked me if I thought there would be any use to breed her. I examined her and found her slimy and acid and tissues of vagina irritated; the cervix closed and firm and about one-third of it about one inch shorter than the other side. Used the saline wash for a week on her and flushed her out with soda and in two weeks she did not clear and showed some signs of acid. Repeated the treatment and in two weeks had cleared up so that I bred her with a capsule. She came back in three weeks and was slimy and sour. Have just used the iodine treatment on her. Did I do right by using the iodine in that case? If she clears up will the cervix in this shape stop her from breeding. Please advise treatment if you can form an opinion by my description. This mare is in the best of condition.—Kansas Subscriber.

REPLY—Use the iodine treatment once a week for three weeks, then breed her with a capsule in November. She will be cleaned up fairly well by that time.

1191—WEAK FOAL—I bred a good mare about ten years old, to my Percheron stallion last spring and she foaled this year about ten days before her time was out. But the milk started from this mare about eight or ten weeks before she foaled and would drop from her while she was at work. The colt was poor and weak and acted sleepy and died. The mare was in good flesh and worked; was fed oats and good timothy hay. Can you tell me what caused the milk to start on the mare, and will it be safe to breed her again this year? We gave the colt some milk, but could not save it. Do you think the mare's milk was too old? I have never seen the milk start like this before and would be very thankful for your advice.—Minnesota Subscriber.

REPLY—There are many causes of weaklings, some of which defy detection by men fairly well versed in breeding problems. In your case your mare showed signs of abortion, but did not complete the act. This threatened trouble had its effect on the colt, although this may not have been all that was responsible for its weakened condition. Whenever a mare develops an udder and wastes milk at this early stage, it is bound to have an influence upon the young.

1192—TREATING BARREN MARES—I have a pure-bred Percheron stallion and have several mares on my route that have been bred; mares apparently in good condition; showed signs of being in heat. In the twenty-one days after, when examination was made, they threw off from uterus a yellowish like matter. Please tell me if either the iodine, saline or soda treatment will bring about a healthy condition. I did not breed these mares a second time.—Montana Subscriber.

REPLY—Please read the article concerning the treatment of barren mares on page 3 of the April 5 issue.

1193—THRUSH—Last February I purchased an imported mare that had thrush in all four of her feet. I have doctored her ever since, but have failed to cure her. She lames a little in front at times. What will cure her and not injure her feet?—Ohio Subscriber.

REPLY—As a rule if the frogs are carefully pared so as to remove all loose shreds of diseased tissue and then thoroughly washed and scraped so as to clean and open up all crevices and these crevices then packed with dry calomel, the operator being careful to work it into the depths of the parts, this will effect a cure, but the treatment should be persisted in once daily until a cure results. A careful examination of obstinate cases of supposed thrush, often reveals that the disease is canker instead, the latter being a disease of the foot that only occasionally can be cured when in an advanced stage. Be sure to keep your stalls clean, dry and well disinfected.

1194—A RANK STALLION—I have a 12-year-old stallion; had him four years; was a rank server the first year; I believe I did not exercise him enough. Did well second year and third year also, excepting one week when I worked him in the field all day and fed heavy; always was a sure foal getter. This year I worked him very little, just enough for exercise and fed moderately on rye hay, some milo maize and three gallons of part oats and part speltz once a day. He was very keen this spring and covered the mares better than he ever did since I had him, until several weeks ago. A man brought several mares and we only found one in heat. He would mount and enter, but not discharge. Tried him three times, then put him in the barn for an hour and tried him again with the same result. I noticed another of the man's mares in heat, tried her and the horse made a complete service. He gave satisfaction after that until a week ago. I tried a mare that he had bred three weeks previously and he couldn't make a discharge; tried several other mares but with the same results; tried the hot water treatment, but it was no success. The first time before I had his penis in the water a minute it contracted so I couldn't do anything with it. The second time he simply wouldn't stand for it. I have not had a day and night watch on him, but I have looked in at all hours of day and night and never have observed anything. He has settled quite a few mares but quite a number are coming back. Everybody is complaining about it this year. Never made more than three services a day; seldom more than two; highest in one week, fourteen; average ten. I found out that the horse had been a rank server before I got him, but he never has been as rank as now. What is the cause, if not masturbation, and how can I prevent it?—Colorado Subscriber.

REPLY—Do not use this stallion as a teaser. Gradually diminish his grain ration for a week. Be sure he urinates each time before attempting to make a service. Serve only tall mares with plenty of length in the vagina. Limit the services to three or four per week. Use capsules on all other mares when necessary. Test the semen at each service so you will know what he is doing. Your water was too hot; it should be at body temperature to begin with, then the temperature may be increased gradually. You cannot expect to make so many continuous services successfully.

1195—ORCHITIS—I have a jack and he is a large one, 15½ hands high. When I went out to the barn to feed him this morning I found that his testicles were swollen, but there isn't any signs of matter about them. I bred a jennet two days before. Would that have anything to do with it? He wouldn't eat the morning I found him in this shape. I would like to know what is the matter with him and the cause and what would be good for him. He is better now and has begun to eat. Any information you can give will be appreciated.—Kentucky Subscriber.

REPLY—Your jack is suffering from an inflammation of the testicles (orchitis), which fortunately appears to be subsiding. Orchitis is usually brought about by some local injury, but may be induced by infection. The latter comes about through serving a diseased mare. The jack should be discontinued from service and be placed upon light laxative food. The main bulk of his ration should be grass. If the testicles are much enlarged and heavy they should be supported by means of a suspensory, placed about the body. Bathe the parts in quite hot water and following the hot application thoroughly wet the parts three or four times a day with a solution of sugar of lead using one ounce of the drug to one quart of

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Stallions and mares of all ages for sale.

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The best collection of Belgian draft stallions, 2 to 4 years old, that was ever imported to Texas, for sale at reasonable prices. Three blue ribbon winners, a champion and a sweepstakes winner. Can be seen in Galveston, Houston and at my farm at Cedar Bayou. All first class breeders and well acclimated. **LEON VAN MELDERT, Cedar Bayou, Harris County, Tex.**

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Registered and High Grade Ponies sale. W. H. Fulcomer, Belleville, public County, Kansas, Member nerican Shetland Pony Club.

n water. Give moderate exercise allowing the jack access to a lot part of the day.

1196—UNDEVELOPED TESTICLE — ıave a Percheron colt that was two ars old in May. Colt is large and owthy but testicles are not well deloped; they are more flabby than average colt of this size, and do come down in the scrotum, although ey can be felt. I gave this colt ven services from one to three weeks art, the closest two being six days. ly one mare is known to be in foal he first one he covered. Would an casional service tend to develop this t, or would it be best to not use n again until his testicles are more veloped and well down?—Kansas bscriber.

REPLY—As a rule the tissues of owthy stock do not show the same nseness as more rapidly maturing ts. This statement will apply to testicle as well. This animal from point of maturity is probably far low the average. Do not be in any eat hurry about putting him into gular service, although occasional eeding will aid in developing the rts.

1197—MAMMITIS—I had a four year d mare that had a colt and about week before her colt was born her g became caked and there was two nches came on each side and was ollen under her belly up to her front gs, and I milked her several days be- e her colt was born. The colt is w five weeks old and one of the nches still remains. The swelling is m her bag and runs half way to r navel. I bathed it in hot vinegar d water, but it doesn't seem to do y good. She seems to feel all right and eats good, and is gaining. There isn't any veterinarian within 25 miles. Will you please tell me what to do for her?—Montana Subscriber.

REPLY.—In addition to the bathing you are practicing, try a careful massage of the affected parts. Not only stroke the parts but carefully knead it with thumb and fingers. If you will do this systematically twice a day you will be able to soften the swelling and encourage absorption of the enlargement. Permit the animal to run at pasture so as to insure exercise, and feed little grain. An application of equal parts of alcohol and witch hazel at the time of kneading will aid.

1198—ERUPTION ON PENIS—I bought a jack about 12 years old, about ten days ago and the next day I took him out to serve a mare and found his penis was bleeding close to the end, but just thought it had gotten hurt accidentally. I have served several mares with him and his penis gets worse; little sores or blisters have broken out on the top side of his penis, beginning within about a half an inch from the end and running back for about three inches; is somewhat raw and when he is in shape to serve a mare it bleeds a little, and his penis does not seem to be as stiff as it should be at the end. Can you tell me what is the matter with him and if he can be cured, and if so, what to do for him? Will the mares he has served become infected? If so, what can I do for them? Will the jack get colts in this condition He was warranted to be sound and right in every way.—Texas Subscriber.

REPLY.—It may be that your jack has contracted genital horse pox, a disease that is conveyed through the act of copulation. At any rate he should be discontinued from service until the parts have healed. Carefully wash the parts with warm water and some good non-irritating soap, to which water there has been added one teaspoonful of lysol to every two quarts of water used. Rinse off the soap suds with the same antiseptic solution. Twice a day apply the following: Lead acetate one ounce, sterilized water one quart. Shake well before using.

USES HINNIES FOR SADDLERS.

To the American Breeder:—In your issue of July 5th, I saw letter concerning hinnies. Hinnies sired by a very hot-blooded stallion are inclined to be mean. I believe a German Coach of compact frame and good action to be the best sire for these animals. Bred from a 1,400 Coach stallion and a common jenny burro, a hinnie will weigh at maturity from 850 to 1,000 pounds. Burros will thrive and breed every year, regardless of climate, just so they get a chance to rustle feed.

I am raising hinnies, by the capsule system, The jennies are very easily foaled, never find one that is not natural—so far have never had to breed one twice.

I know nothing about the market for this class of mules, as we raise them to use as saddle animals in the mountains, working cattle. Here a hinnie broke to ride is worth $150, and there are none for sale. I can deliver jenny burros f. o. b. any main line station in Arizona at $30 per head. All young stock of good average size, and will guarantee them to all be breeders. Can deliver any number from one carload to one thousand.—B. M. Devine, Yuma county, Ariz.

PER CENT OF FOALS FAVORS CAPSULES.

To the American Breeder:—In 1913 I successfully used the capsule system, and looking over my record book I find that my per cent of mares in foal are in favor of the capsule system. There is no difference in the looks of the colts unless it would be more colts, as the stallions and jacks are not overworked as much as with the old way, a service for each mare, from two to five in one day.—C. L. Clayton, Clay County, Kans.

GETTING ALL THE SUBSCRIBERS I CAN.

To the American Breeder:—I have been a reader of the American Breeder ever since it was first published, and would not do without it for ten times its cost. I think sending the Mare Owners Edition to mare owners the cheapest and best advertising I have ever used. Only I would like it better if it came three months, beginning February 1st. That would cover the colt losing season, and I think it would pay every stallion and jack owner to send the Mare Owners Edition to the most of his patrons of the past spring at a rate equally low as the present price. I appreciate the low rate of subscription; am showing my appreciation by getting all the subscribers for the American Breeder I can. I would like to say more but will stop for fear I pass the space line.—W. A. Stuart, Roosevelt County, New Mex.

U. G. SAUNDERS MOVES TO LEXINGTON.

To the American Breeder:—Having changed my location from Flemingsburg, Ky., where I have conducted a successful business with jacks, saddle and trotting horses, and Hereford cattle, to Lexington, Ky., where I have bought a fine stock farm of 403 acres, formerly owned and conducted as a trotting horse farm by Senator Baily of Texas, I expect to engage in the raising of thoroughbred stock more extensively in the future. I am going to make a specialty of fine jacks, jennets and Hereford cattle, with a side line of saddle and trotting horses. Besides jack stock we have



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Closing Out Sale.

12 saddle stallions, 30 saddle mares and geldings and 63 jacks and Percherons. We have the best lot of fox-walking stallions and mares that can be found on any farm in Kentucky. Many of the mares have colts by their side by the best stallions in the state. At the 1914 National Stock Show in Cuba, we won first on fox-walking stallions, 2nd, 3rd, 4th and 5th on fox-walking mares. All stock must be sold at once to wind up the estate of the late H. T. Brown.

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For sale. He is a dark bay, blaze face, 17 hands high; is in good condition and plenty of colts to show. He was foaled in 1907 in Lexington, Ky. Will include a $125 speed cart with this horse.

I also have a black Spanish jack, Tennessee bred; stands 14.1 hands high; 9 years old; plenty of colts to show. Will sell this stock cheap, as I am leaving the country.

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REGISTERED MORGANS FOR SALE.

A choice lot of young stallions and mares, weanlings to 4 years old. Weanlings and yearlings can be crated and delivered to any point by express at a moderate price. Can sell fillies and stallions of different breeding that would be suitable to mate together. Could sell a car load of registered mares and fillies that have been bred to registered Morgan stallions, at a very moderate price. Most of my young stock is out of The Admiral. Headlight Morgan is now at the head of my stud and I am expecting at least 40 colts from him next spring.

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For sale, or will exchange for young, small, unbroke range horses, six registered black stallions; two matured; 15½ hands; 1,200 pounds; two, three years old and two, two years.

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Nine-year-old trotting stallion; Futurity sire; weight 1,150 pounds; by Directum Kelly, 2:08¼; dam, grand dam of Braden Direct 2:01¼; bred right. Can use big jack, Percheron, Coach stallion or gaited saddler; also yearling pacing filly, race prospect.

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For sale. Registered saddle stallion by the Great Chester No. 10; sound and a good breeder. Two, two-year-old registered Percheron stallions and ten jacks from yearlings to five years old; from 14½ to 16¼ hands high for sale at reasonable prices. Write your wants or come and see me.

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20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.

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40 head of fine registered jacks and jennets for the fall trade. I raise most all my jack stock and can sell them cheaper than any man that deals in them. My jacks are all black with white points; in age from colts to 8 years; in sizes up to 16 hands. Formerly of Flemingsburg, Ky.

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Jacks are 14 and 15 hands high; right in every way. Saddle stallion is 16¼ hands high. Will trade part or all for good automobile. Will sell cheap or will consider anything on a trade as I am going out of the stock business.

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32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address

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Two carloads of 3 and 4-year-old mules, 14½ to 15½ hands high. Good bone and quality.

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For sale. I have some good jennets which are kin to my herd jack, for sale at a bargain. Also young jacks, one to coming four years old, and the large, big boned Poland China hogs, breed sows and boars old enough for service, and pigs. Seven miles North of Monett on Frisco R. R., and six miles Southwest of Hoberg on Mo. Pac. R. R. Write for prices to

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6--JACKS--6
17-JENNETS-17

The jacks are three and four years old, and they and the jennets are all good stock. All black with mealy noses. I want to close them out this spring, and will make the prices right.

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For sale, or would exchange for Percheron or coach horses.

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For sale. A black jack; light points; six years old; 15¾ hands high. Also Duroc hogs.

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"I have used two cans of your Jacksorine and I regard it as being as good for jack sores as anything I have ever used. Have been in the jack business for over 30 years.—J. W. McCanse, Mt. Vernon, Mo."

"I have a fine jack which got one of his front legs in the pit, and he got to gnawing it and made a very bad sore which refused to heal for all remedies until I got a box of Jacksorine and cured it with half a box.—J. A. Johnson, Erick, Okla."

"I have tried your Jacksorine and find it the only medicine for jack sores. I can recommend it to any one who has jacks with sores on them.—Sam Molen, Frazer, Ky."

"I have used your Jacksorine, and after having a jack with five different sores on him, and trying every remedy that I could hear of, and giving him up as incurable, I got a box of your Jacksorine and cured him inside of 60 days. I consider it has no equal.—A. M. Perkins, Washington, Ind."

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"Make my claim for Jacksorine as strong as you wish. I used it and found it O. K.—H. G. Belt, New Salem, Ohio."

"I have used several cans of Jacksorine and have found it to be the best thing I ever used for jack sores.—Wiley Clouston, Ness City, Kans."

"We have never used Jacksorine on jack stock, but have used it on a very bad case of grease heel on a stallion, which use gave very satisfactory results. We can recommend it as being a No. 1 ointment.—Jas. and W. R. Clelland, New Hampton, Mo."

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"I am using your Jacksorine with good success. Would recommend it to all as a reliable remedy for jack sores.—Cliff Hutton, Hennessey, Okla."

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"I have used your Jacksorine to my entire satisfaction. I find it to be absolutely the best remedy for jack sores I ever used. Can heartily recommend it to anybody.—O. W. Layson, Hatton, Mo."

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Jacksorine undoubtedly is the best remedy for jack sores ever put out. It is put up in large self sealing containers from a scientific prescription and was long used with absolute success by the president of this company on his own stock. **Remember, the price is $3.50 per can, postpaid.** Remit by P. O. order or bank draft to

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50 registered Herefords and a lot of saddle and trotting-bred youngsters. I invite anyone interested in any of the above livestock to write me their wants or visit my farm, which is on the interurban near Lexington.—U. G. Saunders, Fairland Stock Farm, Fayette County, Ky.

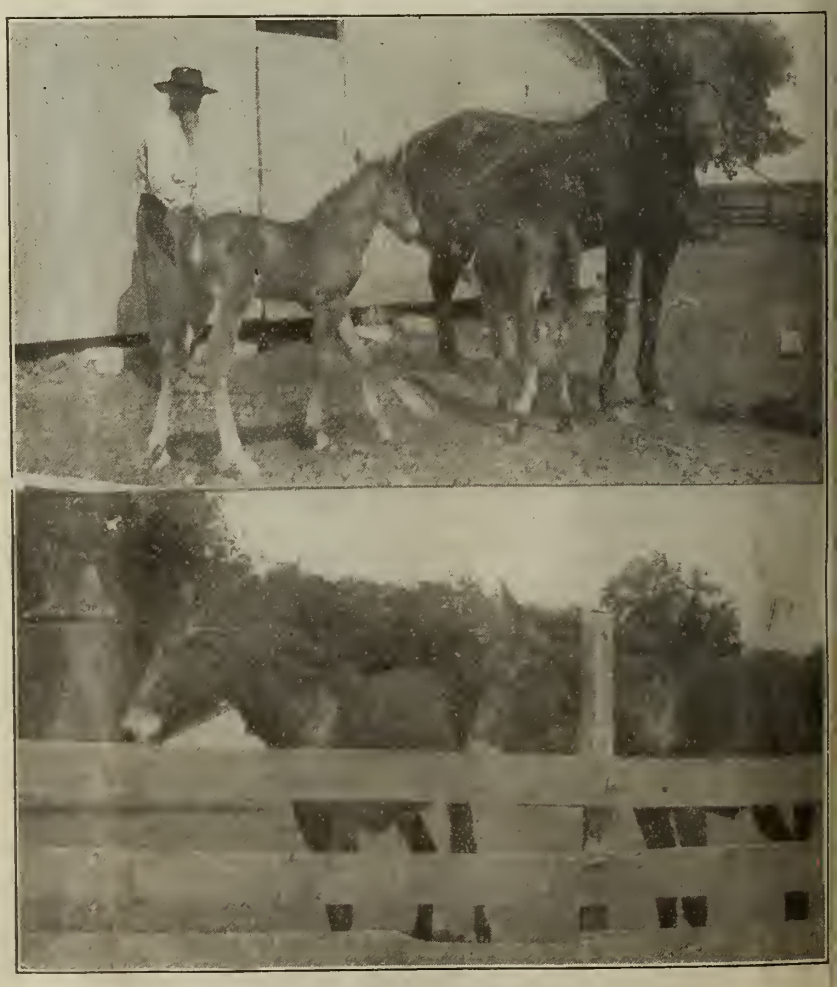
MARE HAD FOUR COLTS WITHIN ONE YEAR.

To the American Breeder:—I have a four-year-old jack; 16 hands high; weighs 1,100 pounds; he is black and registered. I commenced the season on the 9th of March and up to the present time I have served 100 mares. I have just been looking over my stock book and find that he served 60 mares only one time, 24 twice and 16 three times; nine of the 100 are yet to be returned on the 21st day after service. I find that he has made 165 services. Take out the Sundays from March to June 29 and you have 96 service days, which is one and five-eights services to the mare.

Now, Mr. Stockman, criticise this all you think it needs and I will try and profit by your criticism. This jack stands at $10 to insure colt to stand and suck. He served 48 mares last year and got 30 colts. I don't think that he lost any weight during this spring's service. He is a good one.

I have an imported Belgian horse (one of Crouch & Sons'). He has served 44 mares to the present time, commencing the same time as the jack. He stands at $12.50 to insure colt to stand and suck. Twenty-five of these mares were covered only once; 12 twice; five three times, and six of them are yet to be returned on the 21st day after service. From this you can see that about two-thirds of the mares are being bred to jacks in this part of Arkansas.

Now, Mr. Editor, you are giving us the best stock paper that I have ever read. I am sending you picture of mare and four colts foaled inside of 12 months. The mare is owned by A. L. Pryor of Lowell, Ark., the mule colts sired by John Nail's jack, Lowell, Ark., and the horse colts b my Belgian horse; one a horse, th other a mare; the mules are bot horses.—C. L. Hart, Benton County Ark.



AN ARKANSAS MARE AND HER TWO PAIRS OF TWINS.

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THE AMERICAN BREEDER

With which is combined
THE STALLION AND JACK NEWS.

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MARE OWNER EDITIONS.

No owner of good stallions or jacks which stand for public service can afford to overlook sending in a large number of orders for the Mare Owner Editions, which begin September 5. All lists should be in our office by September 1st. This will be the greatest opportunity to advertise and educate a community. Every time the American Breeder reaches one of these men he will think of the individual who has paid his subscription. This is the greatest value we have ever given; of ten issues for ten cents, in clubs of ten or more. Each additional name will cost ten cents. One hundred names will cost only $10. Each man will receive the paper for five months. These lists should be prepared soon and sent in. Each man will be notified from this office informing them who has paid their subscription.

GOOD LITERATURE—GOOD NEIGHBORS.

We have many times felt inclined to comment on the good literature being put out by various state agricultural colleges. Some issue papers or magazines, regularly entered in the mails as second class matter. Others get out plain circulars, printed on one side only, and convenient for clipping and use by the local papers of their respective states. Nearly all this agricultural college literature, in whatever form, is well chosen, reliable and well written, and covers, apparently, the full range of subjects of interest to an agricultural population, as well as discussing many matters of homemaking, education and citizenship, that are important to all.

One of the very best, as well as one of the least pretentious of these publications is the Colorado Agricultural College News Notes. This little sheet of four to six columns, printed on yellow paper, not infrequently contains more of value than some of the 16 to 40-page exchanges which come to this desk. Agricultural Colorado certainly would be fortunate if this sheet of "News Notes" could go regularly into every home. Straight, practical information for the home, ranch and farm prevails, but after these appear short sketches on general subjects, like the following on neighborliness, from Prof. U. M. Cone, with its sensible, forceful application:

More than 2,000 years ago Cato wrote, "Be a good neighbor. Do not roughly give offense to your own people. If any misfortune should overtake you—which God forbid!—they protect you with kindly interest." The neighbor must do for the farmer what police, hospitals and charities do for those in the city. In any community, but especially in an irrigated country, the good will of a neighbor is of great value, and the bond of sympathy is made stronger and stronger as time goes on. The help of one's neighbor is of economic value to the irrigator, and a man may save many dollars by lending a hand to his neighbor when it is convenient, and accepting the same aid in return. That is one reason why it is seldom profitable in the long run to steal water from your neighbor, or quarrel with him concerning the same.

McMILLAN AND BURGESS AT STATE FAIRS.

We are informed that H. G. McMillan & Sons of Rock Rapids, Iowa, and Robert Burgess of Wenona, Ill., (Burgess Stock Farm, Inc.) will each exhibit at state fairs this year. Members of both these firms have been guilty of dealing in pedigrees which were irregular. At least this is the conclusion that prominent breeders have reached, in accordance with the printed rules which other breeders follow.

The reputations of the senior members of these firms have become so widely known that we know of only one paper that carries their advertising, and it would seem that no paper could do so with honor. Now the question is, shall these men be permitted to show their animals at, and win money from, the agricultural shows maintained by the different states? Who will vouch for the accuracy of their representations as to age and breeding of the animals which they exhibited? Can the example of these men be of any advantage to other show men competing with them? What will be the influence on their showyard successes on the rising generation of young men familiar with the situation? Will it be of any special benefit for any state fair to have visitors say "That horse has won a bunch of our state's money, but we do not know whether its breeding or age is as represented because of the reputation of its owner." Many individuals connected with the live stock shows of this country, as well as others with the record associations, understand the existing conditions. Ignorance cannot be given as an excuse in this case.

Every citizen of a state, every tax payer, every patron of the state fair, has a moral right to say that the money he pays in shall not be paid out for premiums and exhibition privileges to men who are known to have used fraud in achieving their selfish aims. Some day this right will be affirmed in the statutes of every state that directs, or contributes to the support of a state fair. Meanwhile there is a way by which this condition can be remedied, and that is by the united efforts of all the men in this country who are interested in the honest improvement of live stock. It does not require a great army to bring about these results. A few good men located at each state fair, with plenty of courage, can be found busy talking with the prospective purchasers of draft horses and telling them the exact conditions. Every one interested should be watching to see who the friends of these individuals are; ask them how they stand on this subject. When one of their friends is noticed who is favorable toward them, let him alone; there are plenty of men in the draft horse business who are honest and it is absolutely not necessary to patronize one who is not, or who is even questionable. But as fast as the breeders and buyers of draft horses, as well as every one interested in draft horses, will take this open stand and make an example of those who are not fit to be connected with the draft horse industry, just that fast will the conditions improve.

HELPING OTHERS.

During the fairs and other live stock exhibitions our readers will be traveling here and there. It is natural for breeders to associate together. By some strange means one breeder will find the other in a crowd of men some way. Here is an opportunity to be of untold value to those with whom our readers meet. There is an army of breeders who do not read; they are following the same plans which their grandfathers followed. They may never have realized that it is necessary for them to be up to date; they do not believe there is anything new in the breeding world.

We should like to request each of our readers to ask all their acquaintances wherever they may go if they are readers of the American Breeder. If they state that they do not know whether they are or not, it is a certainty that they do not get the American Breeder. We do not believe we have a single subscriber on our list but reads the American Breeder from cover to cover. If each of our readers will make it his special business to hunt for those who are not reading any literature on the subject of modern breeding, they can be of untold service to the country. Insist on these men getting more familiar with existing conditions. Nearly all of these men, with a reasonably intelligent talker, will get interested and try to learn something. There are a few men who do not believe that it is possible for them to learn any more. To these individuals we would like to have our readers put the following questions:

1. Where does fertilization take place in the mare?
2. How many spermatozoa are required in fertilization?
3. How do you make the ovarian test?
4. Name the male and female genital organs.
5. What is the length of the epididymis?
6. How many spermatozoa are discharged at one average service of a stallion?
7. How do you test the fertility of a stallion?
8. How do you test mares for acid condition?
9. Name 12 different conditions that would prevent fertilization in the mare.
10. Name seven conditions that would cause you to refuse to make a service on a mare.
11. Describe a diseased ovary.
12. What is a disease germ?
13. Can dourine be carried from one mare to another through the act of copulation?
14. Can the germ called "Barrenness in Mares" be carried from one mare to another through the act of copulation?
15. Will a mare get with foal that is affected with the germ called "Barrenness in Mares?"
16. Trace spermatozoa from its origin, naming all of the organs from which it is manufactured and passed into the mare where fertilization takes place.
17. Describe the different fluids composing semen.
18. How would you diagnose pregnancy?
19. Which hand would you use in palpating the right ovary?
20. Which hand would you use in making examination of the left kidney?
21. Where is the semen discharged in the mare in most cases when naturally healthy animals are used?
22. If live spermatozoa do not enter the uterus, can fertilization take place?
23. Does semen have any value without live spermatozoa?

EFFECT OF THE WAR.

It is too early for even the best informed to know what immediate effect the European war will have on this country. Within two days after the first war declaration it was shown that our financial condition and resources are war scare proof. Of course, this country will ultimately profit in a financial way as a result of any reduction in European production, such as war immediately brings about. American money goes to Europe largely for luxuries, but European money comes here for the food and raw materials which European people and European industries have to have. Their scarcity can have no final effect except in the direction of increasing this country's income. While no American fails to feel first a deep sorrow for the serious trouble that has befallen the countries on the other side, the question is constantly asked: how is it going to effect us? Perhaps never, in a time of such acute foreign stress, has any great country enjoyed a condition of safety and internal strength equal to that which the United States now enjoys.

CARROTS FOR BREEDING STOCK.

Practically every breeder can find a little patch of ground that can be sown to carrots, provided he cannot buy them cheaper than he can raise them. We believe that every breeder will find it profitable to have a good supply of carrots on hand for winter feed. They, of course, should be kept in the basement or buried for the best results in keeping. A few carrots each day or at each feed are exceptionally good for breeding stock during the winter and spring months. This is especially true in the case of jacks. Carrots can be easily raised with profit for this purpose.

ANOTHER STEP TOWARD VICTORY.

One of the most important steps looking toward the final blotting out of the traffic in "booze" has been taken by the general government in refusing to issue federal internal revenue licenses in Oklahoma. Before that, while some federal officers made a show of helping in the arrest of Oklahoma "bootleggers," their efforts were not enough to offset the harm done by issuing the licenses in the first place.

Now that the "bootleggers" can get no federal license at all he will soon be out of business, but the step is of much importance because of what it foreshadows. For a quarter of a century (does it seem possible?) the few state and county officers in Kansas who have tried to enforce the law with regard to intoxicating liquors, have found that one of the biggest obstacles in their work was the attitude of the general government. Whether legal or illegal, the attitude of the federal authorities toward enforcement of prohibition in "dry territory" has been morally wrong. No matter how often, or how emphatically a community expressed itself against "booze" the internal revenue department went right on licensing the lowest, meanest men to operate in violation of the laws of these localities.

With the federal officers furthering (instead of thwarting) the expressed will of the states and the local option districts, there would be an end to the old argument (which fooled many, thin as it was) that "prohibition did not prohibit."

Honest, decent people, who have any use for "booze" or the lines of business and politics which "boozers" support are getting mighty scarce and only the power of crooked money and politically protected crooks has enabled "booze" to put up the desperate fight in which it is now engaged. Let even the few who consider the revenue

from saloons read the following from Judge Wallace:

"The liquor interests will attempt to defeat (in Missouri), the County Unit Law as they defeated the State Prohibition Law. They will point to the great revenues derived from liquor by the state and county. In the state campaign they said, 'We pay $4,300,000 to the state annually.' Yes, and I found that the saloons cost the state annually, $7,000,000 in prosecutions and eleemosynary institutions. While sitting on the criminal bench in Jackson County I observved that ninety-five out of every hundred murders were caused by liquor.

"There are ¼ million saloons in the United States, and they claim 110,000 victims annually. Their monetary cost is 1¾ billion dollars. Our public schools require only 400 million dollars for their annual support."

FALL PASTURE.

Owners of live stock should devise some plan by which stock can be kept on pasture as long as possible. It is much cheaper for stock to harvest the crop than to have it done by hired help. Practically every farmer can arrange his farm (with a little study) so as to have green forage for a considerable length of time longer than the ordinary pasture. Different sections of the country require different methods, but practically every section can be managed in a satisfactory way.

There are numerous crops to be considered for this purpose, in addition to the ordinary mow land which has been harvested. It is not merely a matter of the actual saving in the harvesting of a crop, for the advantage of having a little green stuff for live stock out of season is very important.

Every stallion and jack owner should study the problem. We have advocated on numerous occasions having a pasture fenced suitably for such stock. At this time of year one should also consider the forage best adapted for late pasture. This should include several different varieties of grass, one of which should be green during the winter months. If this is not found convenient, rye should be sown with the other roughness so there will be a little green stuff at all times.

WILL FIND A LIGHT SUPPLY.

A buyer for one of New York's leading horse dealers reports increasing inquiry for pleasure horses—fancy drivers of the different classes especially.

This probably does not presage any important economic change in the horse business, but undoubtedly it does mean better profits for the few in position to supply the really high class material this trade will demand. We never have had a heavy supply of top stuff in any class and just now this sort of supply is particularly limited. The demand for mules and good heavy horses has been for years so much more staple that farm growers of horse stock rarely try for any other market.

The estimated value of horses and mules on the farms of the United States January 1st of this year, is $2,291,638,000. This is the highest figure in history. Allowing the estimated percentage for horses not on farms, we have a total value of $2,619,014,800, and for horses and mules together, $3,202,444,500. This is about double the value of horses and mules ten years ago, and the increase is probably all in heavy horses and mules.

There is a legitimate field for the producers of good light harness and saddle horses and this renewed appreciation of their product is cause for congratulation. No farmer, however, should overlook the fact that producing and selling this kind is a horesman's job, calling for time, skill and market connections, far less in keeping with other farm operations than is the producing and selling of heavy horses and mules.

Getting Into Horse Breeding

BY HENRY W. VAUGHAN, IOWA AGRICULTURAL COLLEGE.

What type of horse shall the farmer breed? The answer depends upon how much capital is available to put into the business, upon the personal qualifications of the breeder, and also upon what type of horse most appeals to his interest. To some extent the choice will depend upon the location of the farm and upon the crops that can be grown.

It will ordinarily require more capital to engage in the breeding of light horses than in the breeding of draft horses. Light horses especially require more expensive equipment to accomplish the training and finishing without which they sell at comparatively moderate prices.

Some men are, because of temperament and disposition, more successful with one type of horse than another. The man who intends to engage in the breeding of horses should ask himself the following questions regarding any or all types he may have under consideration: (1) Am I familiar enough with the type and the methods of its production to know what I am trying to produce and how to produce it? (2) Provided I can produce the type successfully, how can I dispose of my animals, and what are the chances for realizing full value for my stock? (3) Are my buildings, fences, land and crops adapted to handling the type I have in mind, and if not, can I remedy the shortcomings?

In the majority of cases the best type for the farmer to produce is the draft horse. It has many advantages. The brood mares are much better suited to do the work of the farm than are any of the light horse types. Practically no special training is needed to make the drafter ready for market, and he is marketable at a younger age than is ordinarily true of the types of light horses. If he is kept free from wire cuts and other blemishes, and is fat and well groomed when offered for sale, he should realize full value.

The carriage horse or saddler, on the other hand, require months of handling in order to give him a good mouth and develop his action or gaits, as the case may be. Furthermore, a wire cut or blemish is much more serious with these types than with the drafter. They require more care and attention from birth to selling time and require a greater age to finish them for market.

It is also true that there are fewer misfits in breeding draft horses than with any other type of horse; in other words, results are more certain and sure. The production of draft horses fits into general farming better than the production of any of the light horse types. For these various reasons the draft horse is of greatest interest to most farmers and is most frequently selected by farmers who take up horse breeding.

Let it be understood, however, that the foregoing remarks are not intended to discourage the breeding of types other than the drafter. The point is that carriage, roadster and saddle horses are more difficult to produce than drafters, and but few persons, comparatively, are qualified to breed them successfully. The production of light horses requires a higher order of skill both in breeding and salesmanship than does the production of the draft horse, and when this is supplied, light horse breeding is a profitable enterprise.

Hence, the selection of a type to breed should be governed largely by the ability of the man who is to supervise the breeding; provided, of course, he is to work under conditions not unfavorable to the type he is best qualified to produce. Failures in horse breeding, as in most other things, usually have been due to the man believing himself capable of doing things for which he was not qualified.

Pony breeding offers a good field for profit to those who are in position to reach the trade for Shetland, Welsh or Hackney ponies. The breeding of polo ponies, however, is attended with considerable uncertainty, as no breed has yet been developed and most of the ponies produced are not suitable for polo.

After the type of horse has been chosen, it is next in order to decide what breed of that type shall be selected. The choice of a breed is not so important a matter as the selection of a type or the selection of the individuals which are to compose the stud. It will depend largely upon the personal fancy of the breeder, although in some types of horses in certain localities, one breed may be so much liked or another breed so much disliked as to make it advisable for the new breeder to conform to the choice of the community if it is possible to do so. He can then profit from the experience and advice of his neighbors, he will benefit from a greater number of local sales of his stock, and there will be more stallions to select among when mating his mares.

DRAFT HORSE GAIT, WEIGHT AND QUALITY.

To the American Breeder:—Referring to page 12 of March 5, 1914, my article on draft horse gait, I am enclosing a snap shot of a four-horse team of brood mares owned on this farm. This was taken just as they were starting with a five-ton load. Notice the businesslike way that the lead team moves. The combined weight of the above mares (three had colts at home) was 7,800 pounds. The right-hand leader is the mare Hemine (second prize at Iowa State Fair, 1913) and the right wheeler is Gandine, three times champion of Texas We have here a filly out of her jus past two years weighing 1,680, on yearling stallion weighing 1,350 an one stud colt three months old weigh ing 520, all from above mare.—C. F Jones, Greene County, Ia.



FOUR OF C. F. JONES REGISTERED PERCHERON MARES AT WORK.

FILLING SILOS IN THE SOUTHWEST.

A special demonstration in cattl feeding in Amarillo, Tex., has lead t the compilation of certain data, o how and when to fill a silo, whic should be of interest to farmers i the Southwest. In Western Texa Oklahoma, Arizona, New Mexic California, Colorado, Utah and Wes ern Kansas there are undoubtedl many farmers who are about to fi silos for the first time this year an for such the following should be tim ly:

The proper time to cut this fee for silage is when the seed is in th stiff dough stage and the bottom leave begin to turn brown, for at this stag the plant will have its maximu nutritive value and yet be gree enough to keep well in the silo. Th advice applies particularly to the si age in the Panhandle of Texas, th greater part of which is made fro kafir, milo, feterita and sweet so ghum.

When there is a large amount feed to be cut, the work should b done with a row binder, this bein the most economical method. hauling the feed from the field to th silo, a wagon with a low-down bed much better than one with a regul hay frame, as the green bundles a rather heavy to lift. Use sufficie wagons to haul feed as fast as cu It should not be allowed to wilt become partly cured before puttin into the silo. It will not keep as w if allowed to become dry. Wago should be well loaded each trip, othe wise the expense of filling the si will be greatly increased. If one h strong wagons, four-horse teams m be used to advantage.

Silage should be cut into one-ha inch lengths, as it packs in mu closer than when left longer, th crowding out the air, and the sila keeps better. The capacity of t silo is also increased and there less waste in feeding, as all will eaten.

One of the most, if not the mo important part in filling a silo is t packing of the silage. The silage mu be packed well if it is to keep, this packing forces out the, air a the essential thing in making sila is the exclusion of air. If air spac are left in the silo, large amounts silage will be lost. In a silo 12 f in diameter and with a small cutt use two or more men. In large si and filling with large cutters, ke three or more men in the silo s see that they tramp all the tim Pack the edges next to the well; t middle will take care of itself.

When the plants are green no ter need be added in making sila but if the silage has begun to or cure in the field, some water sho be run into the silo while being fill This is done to bring the moist content of the silage nearer to natural state, to make it pack do better, and help exclude the air. safe rule in this matter would be: in doubt, run in some water. Wa will not hurt the silage if there no excess, and every silo should h either a dirt floor or a drain, wh will let any excess water escape. best place to add the water is run it into the blower while cutt

As six or more inches of silage the top will spoil, it is someti advisable to cover the top with s cheap or worthless material. A la of cut oat straw is sometimes ru for covering for the silage and down and well tramped. This fo

seal and preserves all the feed. When feeding is begun, all of this top layer of spoiled stuff should be thrown aside.

It is advisable to tramp the top of the silage every day for ten days or two weeks after the silo is filled, as this helps to force out the air and ends to prevent the silage from settling away from the wall.

HOG CHOLERA SERUM AND VIRUS NOT ALLOWED IN CANADA.

To the American Breeder:—In the campaign for the control and ultimate eradication of hog cholera, Minnesota is fortunate in at least one respect, namely, that on one side of the state is bounded by territory that is relatively free from the disease. Canada does not tolerate hog cholera at all. True it is that the disease frequently makes its appearance within her borders, but it is not allowed to spread, on account of the rather energetic way they have of dealing with it.

Canada employs what is commonly called the "slaughter method" when an outbreak of the disease occurs. Upon a diagnosis of cholera being made, all hogs in the herd are appraised and slaughtered. The owner is compensated in full for all carcasses that fail to show any evidence of the disease, and receives two-thirds value for the affected carcasses. All exposed herds are dealt with in the same way, the work being in charge of veterinary inspectors under the Veterinary Director General of the Canadian Department of Agriculture.

A very interesting fact in connection with hog cholera in Canada is that it has been found, with a few exceptions, that the probable source of infection has been uncooked bits of pork rind, etc., which have been eaten by hogs fed on garbage. A large quantity of the pork consumed by Canadians is imported from the United States where the disease has been prevalent for a long time. It is possible for a hog to be in the incubative stage of the disease when slaughtered, and the carcass passed for human consumption. This pork apparently has no bad effect on human beings, but will convey the disease to susceptible hogs unless it is thoroughly cooked. Pickling and smoking apparently fail to destroy the cholera germs.

Vaccination of hogs is not permitted in Canada. A regulation of the Canadian government reads as follows: "The use of hog cholera serum or virus, being considered a source of danger, the importation, manufacture, sale or use of such serum or virus is prohibited."

The regulations for the admission of hogs into Canada from the United States are very strict. Hogs that have been vaccinated by the double method cannot be admitted. Hogs coming from localities in which there has been cholera within the past six months are refused entrance. Hogs which are not excluded for these reasons are held in quarantine for one month at the Canadian border before being allowed to go to their destination.—H. Preston Hoskins, Assistant Veterinary, University of Minnesota.

Soon after the Trumans bought Romping Flash, son of England's most famous hackney stallion, Polonius, the old horse died. Then came offers for the young horse which gave the Trumans opportunity for a handsome speculation, but so far as we have heard they are keeping Romping Flash and foreigners will see him in America this fall.

Can you do better than accept the offer made in our first editorial on page 3? It is the surest and cheapest way to improve your own business.

Alfalfa Proved Superior

The superiority of alfalfa hay as a protein supply and corn balancer, in Nebraska cattle feeding, was well shown in a Nebraska Agricultural College experiment, which closed last spring, and the discussion of which was made the feature of a cattlemen's meeting held at that time. The experiment, and the cattle employed in it, were discussed by Prof Bliss.

The cattle were driven in by lots. As each lot came in, an explanation was made of the ration fed, gain made and valuation of the lot. The value of each individual steer was also given. These valuations had been made previously by a committee composed of Mr. Wyness and Mr. Winder, cattle buyers for Morris and Armour, and Mr. Ingwerson and Mr. Tagg, commission men, all from South Omaha.

The individual rating was very interesting, owing to the fact that a complete record had been kept of the feed eaten by each individual animal. These individual records brought out surprising differences in the gaining capacity between steers fed and cared for in exactly the same manner. Each of the eight lots contained two steers, one of which made a 100-pound more gain than another steer, standing by its side and cared for in exactly the same manner. This emphasizes the necessity of getting records on large numbers of steers before drawing definite conclusions.

The eight lots of cattle were fed on the following rations: Lot 1.—corn and alfalfa; Lot 2.—corn, alfalfa and straw; Lot 3.—corn, alfalfa and a light feed of silage; Lot 4.—corn, alfalfa and a medium feed of silage; Lot 5.—corn, alfalfa and a heavy feed of silage; Lot 6.—corn, alfalfa and a heavy feed of silage at the beginning of the feeding period and light at the close; Lot 7.—corn, alfalfa, 1½ lbs., cold pressed cotton-seed cake and a medium feed of silage; Lot 8.—corn, cold pressed cotton-seed cake, corn silage, and a small amount of alfalfa during the first part of the feeding period while making the change from alfalfa to cotton-seed cake. Each lot received a small amount of straw in addition, with the exception of Lot 2, which received considerable straw.

The silage fed contained very little corn. This was due to the drouth last summer, which prevented ears from forming. At the time of filling the silo, many of the corn stalks were badly dried or sunburned. Unquestionably, the silage did not have the feeding value that it ordinarily has, and allowance should be made for this.

The steers were fed 154 days. In rate of gain, lots 1, 3, 4 and 5 made 2.10 pounds per day; lots 6 and 8, 2.07 pounds per day; lot 7, 2.05 pounds per day and lot 2, 1.86 pounds per day.

In feed required for 100 pounds of gain, lot 1 proved the most desirable, and lot 3 came next.

Figuring corn at 65c per bushel, alfalfa $10 per ton, corn silage $3.50 per ton, cold pressed cotton-seed cake $26 per ton and straw $2 per ton, the cost of producing 100 pounds of gain was $10.72 in lot 1, $11.30 in lot 3, $11.49 in lot 6, $11.73 in lot 5, $11.77 in lot 4, $12.11 in lot 7, $12.23 in lot 2, and $12.86 in lot 8.

The addition of cold pressed cotton-seed cake to a ration of corn, corn silage and alfalfa increased the cost of grain and lowered the profit.

Alfalfa proved superior to cold pressed cotton-seed cake when fed as a protein supplement to a ration of corn and corn silage, both as regards cost of gains and as regards rate of gains.

This experiment corroborates previous work at this station showing the value of alfalfa hay when fed to fattening steers which are receiving a heavy feed of corn.

THE AMERICAN BREEDER AS "FARM HELP."

To the American Breeder:—I am enclosing you an ad to put in your next issue and run for three publications. You can revise it and put it in the best form, as I am no ad writer. I certainly do appreciate your paper. I think it far superior to anything of the kind published. I had rather be short a man on the farm than miss it. Send me bill for ad and I will send check.—W. H. Thomas, Giles County, Va.

WHO HAS USED "HUMANE" COLLAR?

To the American Breeder:—As you do not want to advertise anything but what is good, I will give you my experience with the Humane Collar. I spent $20 for a pair and found them of no use. The only thing I could work them on was a jack. A friend, Fred Hall, tried them and could use them on nothing. I sent them to the second-hand store to sell them for whatever he could get, but after a year the man told me to come and get them, as no one would buy them. They are still there, I believe, and any one is welcome to them. My stallion refused to work in them, although he is a good horse in a regular collar.—Stanley Turner, Tom Green County, Texas.

Editor's Note:—We want to know the experience of every reader who has used the "Humane Collar." This is the first kick we have received on the advertisement.



MULE POWER ON THE SPREADER. FARM OF C. H. WHITE, COFFEY COUNTY, KANSAS.

Partially Personal

You remember "Mole St. Nicholas," which reported most of the fighting that never happened during the Spanish War? Well, some of the news centers of Europe are making our "Mole" look like a freckle.

"Hot weather does not wilt the enthusiasm of correspondence students," writes Prof. Werner, who directs this course in the Kansas Agricultural College. Which reminds those of us who have tried both, that even a "heated correspondence" is some relief from heaving big forkfuls of hay up the hot side of a half-built load.

Prof. E. N. Wentworth, whose articles in the American Breeder will be remembered by many of our readers, has been chosen to take charge of the animal breeding experiments and instruction of the Kansas Agricultural College. Prof. Wentworth was in the Iowa State College at the time his articles appeared in the American Breeder.

Prof. Joe S. Montgomery, of the animal husbandry department, University of Minnesota, and an active aid in the agricultural extension work in the state, recently returned to his work after a visit with his mother in their old home, Manhattan, Kas.

In a late Oklahoma farm paper we counted 17 political advertisements of men who are running for state office. Some other farm papers of that state derive an equally good business from this source. The candidates' solicitude for the farmer is always touching. Apparently, also, the papers' "solicitude" for the advertising "touched" a few.

When the lawns in Washington, D. C., become "overrrun" with army worms the United States Department of Agriculture put out a bulletin on this pest—a month or more behind similar bulletins from some of the state agricultural institutions. Proximity is a good prod.

Dr. L. L. Lewis has been chosen acting president of the Oklahoma A. & M. College. Dr. Lewis has been head of the veterinary department of the Oklahoma college since '97.

Of six county school superintendents in the list of speakers at a recent "rural life" meeting four were women, and two men. The growing custom of electing women to this office has, in a majority of cases, been a good thing for the county school systems.

Secretary "Jake" Mohler of the Kansas Board of Agriculture has done a wise and timely thing by enlisting the co-operation of the banks of the state in his efforts to have the wheat growers hold their crops for a better market.

Prof. R. J. Bliss of the Animal Husbandry Department, Nebraska Agricultural College, has been elected Director of the Department of Agricultural Extension of the state college at Ames, Ia. The previous incumbent had vacated this position at the request of the president of the college, and Prof. Bliss' selection, after he had once left Ames for work in another state, is in line with the new policy noticed at Ames, to give more attention to merit and less regard to politics.

The new secretary of the Oregon Stallion Registration Board is Carl N. Kennedy, formerly of the Texas Agricultural College. Prof. Kennedy goes to the Oregon Agricultural College as assistant in animal husbandry.

Questions and Answers

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

Sign Your Name and Address to all Questions.

1199—FAILS TO CONCEIVE—I have four brood mares, but so far this spring have not gotten any with foal. One of them has not had a colt for two years. She is five years old and was torn at foaling which made her nearly a gillflirt. She makes a noise the same as a gillflirt. I have bred her five times this year, but she has not caught yet. What shall I do to make her get with foal? Her urine is like half blood and water if I give her a hard drive. This has happened two times this summer or since March. Has she got kidney trouble and what is the cure for her? I have one mare that has a clear slobber run from her mouth and she froths when eating oats. Is it lampers or what is it? What is the cure?—Wyoming Subscriber.

REPLY.—You appear to have troubles that require the presence of a competent veterinarian to discover. The mare with the torn perineum needs a careful examination of the condition of the internal organs of the genital tract, particularly the cervix. It may be in the act of foaling these parts were lacerated also. Every case of barrenness is a problem within itself and without a description of those local or even general symptoms such as the average layman cannot be expected to give, you can see how difficult it would be for us to attempt to outline a course of treatment that would correct the ill and cause the animal to breed. We would suggest that you employ a qualified veterinarian to examine these cases, also examine the teeth of the last animal mentioned with a view of learning the condition of those organs.

1200—CHRONIC MAMMITIS—I have a young cow aged three, that has a caked bag; at times there are strings of stuff comes through the teats. It shifts from one side of the bag to the other from the right hand front teat to the left hand back teat, and sometimes the bag seems to be all right.—Colorado Subscriber.

REPLY.—Care should be exercised in what is fed to such cases as noxious weeds in the pasture will oftentimes when consumed by milch cows produce the trouble complained of. See that the animal at all times has clean, wholesome diet and good, fresh water to drink. Bathe the parts affected twice a day with the following and while doing so carefully and gently rub and knead the affected parts. Spirits of camphor two ounces, alcohol eight ounces, witch hazel six ounces; mix together. Give the animal one dram potassium iodide in the drinking water once a day for ten days or two weeks. Do not feed heavy food like corn chop.

1201—FOUR YEAR OLD MARES—I have two mares four years old and would like to get them with foal. Am breeding to a three year old colt and the man who owns the stallion tells me that mare four years old is hard to get with foal, so I would like to know whether there is any truth in it. I have bred them three times already and they are not with foal. Do you think that an older horse would stick them quicker? The mares are in good condition and I cannot see why they should not get with foal.—Wisconsin Subscriber.

REPLY.—At the age of four years mares are usually having some trouble with their teeth. This must have some effect on their breeding qualities. This is more noticeable when mares are worked hard at this age. If your mares are healthy and not diseased in any way you might try giving them a little better attention without much work, and breed them a little later. If this three year old colt is settling other mares we do not know why it would be necessary to change to an older horse.

1202 OSSEOUS ENLARGEMENT—I have a three year old draft colt that about three months ago was kicked on the front leg just above knee. It swelled badly at times. I blistered it and reduced the swelling, but there is still a hard bony growth about the size of a hulled walnut left. It is tight on the bone. Would be pleased to have you advise me what to do if you think anything can be done to reduce this lump.—Kansas Subscriber.

REPLY.—You are doing about as well as can be done in cases of this kind and you will find that it takes time to reduce bony enlargements. We would suggest that you continue to apply some moderate blistering agent about every three weeks. You will be fortunate if you reduce the enlargement in eight or ten months, but the fact that the animal is young is in its favor.

1203—MARE FAILS TO COME IN HEAT—I have an imported Percheron mare that I bought when four years old. When I bought her she was in foal to a horse in France, and she raised me a fine mare colt. She is now seven years old and I have been breeding her ever since to three or four different stallions, but cannot get her in foal. This mare never seems to be in heat. If you try her every day she will fight the horse, but at the same time she will throw water, but I don't think she is horsing. I bred her once this summer by twitching her, but she is the same now as before we bred her. I have had her opened up and she seems to be all right. I work this mare every day, but I never do notice her horsing. If this mare can be got with foal, I wish you would tell me how to do it.—Illinois Subscriber.

REPLY.—Your mare may be in foal from the forced service. Such things have happened. It might be well to wait a reasonable length of time then make a rectal examination to see whether the mare is in foal or not. If she is not in foal try this mare every day for three weeks. If you do not find a heat period during that time breed her with a capsule whether she is in heat or not, and let her go.

1204—FOUL SHEATH—I bought a saddle horse about two weeks ago and it was guaranteed sound, but I have found that its sheath is full of a mattery sort of substance. I started to try and clean it up by using good clean water and carbolic acid. It looks like the skin is all off the inside of sheath. Would like very much to have you tell me what to treat it with.—Montana Subscriber.

REPLY.—Wash the sheath out carefully with a one per cent creolin solution, using no rough manipulation while doing so. Then examine the raw surface for tumor growths. Oftentimes the condition complained of is induced by the presence of new growths which if found will necessitate the services of a skillful veterinary surgeon to remove. If only a raw surface is found it will probably heal with an application of sugar of lead. Use one ounce of the drug to one quart of water and apply the solution twice a day. As often as needed use the creolin solution to keep the parts clean.

1205—BUYING A TYPEWRITER—Will a typewriter pay? Would it pay an average man in the breeding business, like myself, to buy a typewriter for correspondence? It is hard, sometimes, to write a letter by hand, so it is plain. I do not have so much writing—only what an average farmer does, besides writing to mare owners, and some letters during the hay shipping season to Kansas City and St. Louis dealers. How hard is a typewriter to learn?—Missouri Subscriber.

REPLY.—A good penman with only a small correspondence has but one reason for using a typewriter; its convenience for keeping copies of all he writes. But if one is a poor or indifferent penman, a very little business correspondence will justify the use of a typewriter for the sake of making one's letters plain and easy to read. We have several times heard from advertisers who received many inquiries for the animal they had to sell, but got few replies to their letters to prospective buyers. In some of these cases we were barely able ourselves to make out the advertiser's writing. More than likely, in each case, some one of the prospects would have become a buyer had he received a good, plain typewritten description of the animal, with satisfactory assurance, and an invitation to inspect. Realizing that thousands of our readers could use typewriters to advantage we have solicited the advertising of two or three concerns that sell "rebuilt" machines for from a half down to a fourth of the cost of new machines. One of these machines kept clean, and properly oiled, will last many years. It does not take long for any one to learn to run a typewriter as fast as he can write with a pen, and on farms where there is much writing, or where several bright children are growing up, it pays well to send one boy or girl to a good commercial school. Every typewriter buyer should immediately also buy a few sheets of typewriter carbon paper and a copy should be kept of every business letter written. Probably every man who reads this can remember a case or cases when he lost time or money by not having kept copies of letters written. Almost any typewriter house or stationer sells typewriter carbon paper.

1206—BLOODY URINE—I have a horse that passes bloody urine every once in a while; sometimes it will be two or three days between. He don't have any trouble in passing his water. He has been passing bloody water off and on for a month. He eats and drinks good and is fat. At first I thought it was astoria, but I have decided that it must be his kidneys. What can I do for him?—Utah Subscriber.

REPLY.—In order to determine the cause of the animal voiding bloody urine, it will be necessary to have the animal examined by a good veterinarian for the reason that these conditions are frequently brought about by the presence of gravel in the bladder, or may be occasioned by ulceration of the mucous lining of the bladder or a growth in the walls of the same. You will appreciate we are unable to advise you relative to treatment until the cause of the trouble has been discovered.

1207—JENNET GESTATION—Should a jennet carry her foal 12 months?—Kansas Subscriber.

REPLY.—A jennet will usually carry the progeny a little longer than a mare. It is not uncommon for a jennet to go 12 months.

1208—KNUCKLING IN COLT—I have a colt six weeks old that knuckles down in the ankles and would like to have your advice in regard to him. It was apparently all right until it was about eight days old, then it began to knuckle forward in its front ankles and has been getting worse every since.—Oregon Subscriber.

REPLY.—As a rule if these little fellows straighten up after foaling they remain all right afterwards. In your case we believe you will gain time by having a good veterinarian show you how to apply splints and bandages so as to support the parts, and if this does not succeed in overcoming the trouble in a reasonable time it will be necessary for the surgeon to sever the tendons so as to permit the limb to come into normal position.

1209—HORSE AND MULE MARKET—What is the future outlook for good mules, jacks and horses?—Kansas Subscriber.

REPLY.—No one can tell exactly what any market will do. Sometimes the unexpected happens. So far as we can see at the present time the demand for good horses and mules will continue good. Many of the best judges among these lines have made the same statement. The largest individual mule dealer in the world has recently invested a fortune in mules barns in such a way that the princip

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeny, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is Warranted to give satisfaction. Price $1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address

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"VISIO" will convince any horse owner that it is the best remedy for defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our money back GUARANTEE.

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will clean them off permanently, and you work the horse same time. **Does not blister** or remove the hair. $2.00 per bottle, delivered. Will tell you more if you write. **Book 4 K free.** ABSORBINE, JR., the antiseptic liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments. Enlarged Glands, Goitres, Wens, Cysts. Allays pain quickly. Price $1.00 and $2.00 a bottle at druggists or delivered. Manufactured only by W. F. YOUNG, P. D. F., 388 Temple St., Springfield, Mass.

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No. 10—Heavy, high-test rawhide center, from butt to tip; rubber lined double waterproof covered, 6½ fee long. Prepaid for $1.00.

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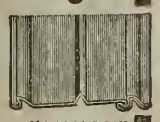
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part of this investment will not have any great value for any other purpose. We do not know of a single individual who is posted on the future of the best stock who does not say that the future is good. Cheap, inferior stock will not be profitable. Every horse and mule must have a job. The little undersized stuff that do not fill any special class will not be in great demand.

1210—BONY ENLARGEMENT—My two year old Percheron stallion has a lump on the inside of his foreleg about the size of an English walnut, about one-third of the way up, between the ankle and the knee. It resembles a splint very much only is lower down than I ever saw one. It seems to be on the main bone, although close to the cords. It is hard and slightly sensitive to pressure, although not much. About ten days after it appeared he made a hard run in the corral and that evening the leg was swollen from the lump down to the ankle, and he was quite lame. Since then I have kept him in a small corral so that he cannot exercise too violently. The swelling has most all disappeared, also the lameness, but the lump is the same as ever. It made its appearance about six weeks ago, the first I noticed it, and that was just after serving a nine-day mare. She did a little kicking on account of her colt, but it is my honest opinion that she did not hit him. Please give me your opinion and remedy.—Montana Subscriber.

REPLY.—We suspect that the osseous enlargement is at the lower end of the splint bone which, if true, it is not properly a splint. Sometimes the osseous nodule at the lower end of the inner splint bone is unusually large. It would be well to compare with the limb opposite and note if it is normal. Such enlargements do no harm so far as causing lameness is concerned. Inasmuch as it is unsightly you will perhaps be able to cause some absorption of the growth by painting it once daily with tincture of iodine. It will take several weeks to produce much effect so you must be patient during the treatment.

1211—UNCLEAN METHODS—I started to treat a mare about two months ago and when I started to examine her I found she was awfully dirty and that her cervix was long and awfully tight. I treated her with a little iodine and another good antiseptic and then I did not breed her for some time, but three weeks ago I bred her. I gave her a natural service and also used a capsule,

(Continued on page 14.)

Live Stock, Hay and Grain Market Review

European political disturbances have not affected the live stock markets to any noticeable extent, but in the grain, security, investment and cotton markets there have been wild times, followed by a closing of all markets except live stock and grain. It is claimed that the equine market will be the last to notice the unusual conditions in which markets are now thrown.

General conditions in the horse and mule market have not changed materially in the past two weeks, and the market still has two more weeks of dullness to endure before the fall trade begins to look up. The season is moving to that stage where crop conditions are going to cast an influence, both in the supply and demand. Weather conditions recently have been unfavorable in the cotton belt and much of the corn belt. The worst conditions have prevailed in Texas, Missouri, Illinois and Indiana, and both corn and cotton have been damaged. The one section is a feeder for the other section, so that the decreased operations in feeding lines will probably be offset by lack of demand from the other section. However, general prospects of both cotton and corn would improve materially under copious rains. The market supply of horses has not been burdensome during the dull season, and countrymen as yet have no urgent call for selling work horses. The central west, owing to the big wheat crop, still has urgent need of horse power, and in the extreme western part of Kansas there is a general shortage of horses. Some shipments of good rugged work horses have been made to that section, the need being for fall plowing. More will be taken in the next few weeks. The east is buying only a few horses, on "fill out orders," but even under small requirements, it has been hard to get the kind that suited. Scalpers are picking up the few good quality thin horses offered, and there is enough demand for feeders to keep the offerings cleared.

As to prices dealers quoted fluctuations of $5 to $10 a head, but with the supplies not large enough to fairly test values it would be hard to detect any net change. Country buyers say they expect to begin operations by the middle of August, and that should result in increased market supplies in the following week.

In the mule division general indifference reigns. Dealers are not making any effort to encourage shipments for the immediate future, and they say there is no urgent demand in sight.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Horses—	
Drafters, 1700-pound extra quality.	$235@265
Drafters, good to choice	185@230
Drafters, fair to good	140@175
Chunks, good	145@185
Chunks, fair.	90@140
Southerners, good to choice	125@150
Southerners.	65 up
Mules—	
13½ to 14½ hands	$100@135
14½ to 15½ hands	130@165
15½ to 16 hands	160@210
16½ or better	200@265

The Cattle Market Turns Down.

On Monday, July 27, cattle in Kansas City sold up to $9.95 and in Chicago up to $10. The Chicago top price had been recorded in the preceding week also, but the Kansas City quotation was a new high level for July. Firmness prevailed in the prime cattle only, and owing to increased supplies of the plainer cattle, especially grassers, the market turned down and closed July 30 to 50 cents under the high point of the month. Such a decline, however, is entirely seasonable, and did not take the market below the closing level of July. The general trade ignored the tense situation in European political circles. The cattle market is on an entirely domestic basis, and the supply now in sight will be no more than enough to meet the needs of this country. The only effect will be the reflex of dull conditions that will come from general suspen-

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Sold on 15 days trial. Guaranteed to move more dirt with less draft than any machine made. Two levers, one tilts the blade any angle, one raises and lowers the rear end of blade, leaving the dirt where you want it, crowning road bed smooth.

Made in 3 sizes
8-ft blade, $90
10-ft " $95
6-ft weighs 800 $80

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RED OAK, IOWA.

CORN HARVESTER with binder attachment, cuts and throws in piles on harvester or winrows. Man and horse cut and shock equal to a corn binder. Sold in every state. Price only $20.00 with fodder binder. J. D. Borne, Haswell Colo., writes: **"Your corn harvester is all you claim for it; cut, tied and shocked 65 acres milo, cane and corn last year."** Testimonials and catalog free, showing pictures of harvester. Address **PROCESS MFG. CO., Salina, Kans.**

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The Fine Horse and Jack Auctioneer of the West



I sell more horses and jacks than all others. Terms always right: work always up to the highest standard.

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The best exhibits of Horses, Cattle, Swine, Sheep, Poultry, Farm and Garden Products, Dairy, Domestic Products, Bees and Honey, Women's Department, Fine Arts, Educational, Machinery and Mercantile Displays.

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May Wirth, the dainty Equestrienne; Power's Trained Elephants; Immense Night Program including Fireworks; Ed. R. Hutchinson's most daring Aeronauts; Harness and Running Races, eight days; Louis Disbrow and other great auto drivers. **Horse Show Second Week, Sept. 28-Oct. 2.** Southwest's Biggest Automobile Show.

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I don't ask you to pay me one penny until I prove to you that **Sal-Vet** will rid your stock of worms—make your hogs sleek, healthy and better able to resist disease—make your sheep thrifty—keep your horses and cattle in a healthy condition. All I ask you to do is to feed **Sal-Vet** as directed—watch results and report at the end of 60 days. Just fill out the coupon below and mail it to me. I'll ship you enough **Sal-Vet** to last your stock 60 days at my risk.

The Great Worm Destroyer **SAL-VET** **The Great Live Stock Conditioner**

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REG. U.S. PAT. OFF.

Has saved thousands of hogs in every state. **Sal-Vet** is not a food, but a medicated salt. Stock do not have to be dosed, drenched or handled. Read what this man says:

"We have had hog cholera all around us, but our own hogs are still in fine shape. We simply think lots of the **Sal-Vet** which we have been feeding, and which has kept them in this condition."
ROLLIN ESINGTON, Burchinal, Iowa.

(186)

PRICES

40 pounds	$ 2.25
100 pounds	5.00
200 pounds	9.00
300 pounds	13.00
500 pounds	21.12

Never sold in bulk; only in Trade-Marked Sal-Vet packages. *Shipments for 60 days' trial are based on 1 lb. of Sal-Vet for each sheep or hog, and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular size packages. Get the genuine Sal-Vet.*

Fill Out the Coupon—Send No Money

Tell me how many head of stock you have, and I'll promptly ship you the **Sal-Vet** you need. You simply pay the freight on arrival—feed it as directed, and at the end of 60 days report results. If **Sal-Vet** has not done all I claim, I'll cancel the charge—you won't owe me a penny. Address,

SIDNEY R. FEIL, Pres.
THE S. R. FEIL CO., MFG. CHEMISTS
Dept. AB CLEVELAND, OHIO

Sidney R. Feil, Pres.
THE S. R. FEIL CO.
Dept. AB 9-5-14 Cleveland, Ohio

Ship me enough SAL-VET to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days and at that time pay for it if it does what you claim. If it does not you are to cancel the charge.

Name.....
P. O.....*State*.....
Shipping Sta.....
No. of Sheep .....*Hogs*.....*Cattle*.....*Horses*.....

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sion of business in other lines. One other factor that makes for dullness is the dry weather in many sections. That is keeping country buyers out of the competition and throwing a good many half fat cattle into killers' hands that ought to go back to the country. Choice to prime steers in the past two weeks sold at $9.25 to $9.95, and that kind is extremely scarce. Grass fat wintered steers sold up to $9.25, and fed Western steers up to $9.60. On the quarantine side steers sold up to $8.85, with the range $5.50 up.

Quotations for the various grades of killing steers are as follows:

Prime corn fat steers	$9.25@9.95
Good to choice steers	8.50@9.25
Fair to good steers	7.75@8.45
Common to fair steers	7.25@7.70
Meal fed, choice	8.25@9.00
Meal fed, common to fair	7.60@8.20
Quarantine steers, fed	8.15@8.85
Quarantine steers, grass fat.	5.50@8.10

Butcher Cattle Slump Also.

Killers held back in the butcher cattle market and prices fell 40 cents to 50 cents, but before the market started down new high levels for the year had been recorded. Yearlings sold up to $9.85, heifers $9.60 and steers and heifers mixed at $9.75. A few prime cows sold at $8. Practically no prime butcher cattle were offered after the market turned down and the actual decline has shown only in the plainer kinds. No big supply of she stuff will be offered this summer, but about the usual number of discards will come from dairy herds. Veal calves continue to sell readily at firm prices.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$6.75@7.40
Good to choice	6.00@6.75
Fair to good	5.00@6.00
Common to fair	4.50@5.00
Canners	3.50@4.45
Heifers—	
Choice	8.50@ 9.25
Good to choice	8.00@ 8.45
Plain to fair	6.75@ 8.00
Common	5.50@ 6.70
Veal calves	7.00@10.25
Bulls	4.50@ 7.25

Dry Weather Dulls Feeder Trade.

Until some good heavy rains fall in the section from the Missouri river east there will be no urgent demand for stock and feeding cattle. Some are going to Iowa, Nebraska and the Northwest, and the receipts at all markets are small. Prices are 40 to 65 cents lower than two weeks ago and under the average of the past two months. Deals among the big cattle outfits of the Southwest are numerous and prices firm. Six month old stock calves sold as high as $30 a head.

The following quotations are for the various grades of stock and feeding cattle:

Selected feeders	$ 7.40@ 7.85
Good to choice feeders	7.00@ 7.40
Fair to good feeders	6.50@ 7.00
Plain to fair feeders	6.25@ 6.50
Selected stockers	7.40@ 7.75
Good to choice stockers	7.00@ 7.35
Plain to fair stockers	6.50@ 7.00
Stock calves	6.00@ 6.50
Stock cows	5.00@ 6.25
Stock heifers	5.25@ 6.75
Milch cows	60.00@110.00

Hog Demand Fickle.

In the third week in July all markets reported hogs selling up on $9, and river markets reported new high levels for the year, though Chicago and St. Louis did not pass the March record. Since that time the market has had a severe break, a partial recovery and in the past two days turned weak again and is 10 to 15 cents net lower than two weeks ago. Receipts continue small, but packers say that owing to the comparatively low price of lard, which is now on the basis of 7 cent hogs, they are losing money on July purchases. Fresh pork is selling at a fair profit and shippers are in the market. A few light weight pigs are selling up to $9 for serum purposes.

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week.
Monday	$8.60@8.85	$8.80@9.10
Tuesday	8.65@8.95	8.90@9.10
Wednesday	8.70@9.00	8.95@9.15
Thursday	8.65@9.00	8.80@9.02½
Friday	8.60@8.85	8.60@8.95
Saturday		8.60@8.67½

The following quotations are for hogs:

Choice, 250@300 lbs	$8.70@8.85
Choice, 200@245 lbs	8.65@8.85
Medium weight	8.50@8.80
Light weight	8.40@9.00
Common to fair	7.00@8.50
Stags	6.25@8.50
Boars	4.50@7.25

Light Receipts of Sheep.

Sheep prices, which started down the second week in July, were not checked until they landed below 8 cents for lambs and under 5 cents for sheep. At that decline prices were fully $1 under the high point in July and at the decline they were the lowest of the season. In the past few days the market gained some strength and lambs are quoted at $7.50 to $8.10, ewes $4.50 to $5 and wethers $4.75 to $5.65. The fall movement of stock and feeding sheep is expected to begin in the next few weeks. A good many orders for thin sheep are being held by commission men awaiting supplies.

Wild Times in Grain.

July 28, when it was announced that Austria Hungary had declared war against Servia pandemonium broke loose in the grain markets and continued until the close of the week. Tuesday prices rose 9 cents in the speculative wheat markets, fell back 4 to 5 cents Wednesday, Thursday the December Chicago price bounded up 9 cents reaching $1, and Friday fell back a like amount. The cash price fluctuated 4 to 6 cents a bushel and the entire market is unsettled. The closing of the security and money markets, the high rate of exchange together with high premiums charge for insuring grain in ocean passage tended to check the unprecedented speculation that arose in a few days. It will take some time for the trade to get back into well established lines, and if war continues in Europe a series of the most sensational grain markets this country has seen in a number of year will prevail.

New Wheat—		
No. 2 hard	80	@83
No. 3 hard	76	@81
No. 2 red	80	@83
No. 3 red	79	@82
Corn—		
No. 2 white	77	@78
No. 3 white	75	@77½
No. 2 mixed	74½	@75
No. 3 mixed	73½	@74
Oats—		
No. 2 white	38½	@39
No. 2 mixed	34½	@36½
Rye	67	@69
Chop	1.41	
Bran	96	
Barley	48	@51½
Shorts	1.12	@1.21

Hay Prices Irregular.

Prairie, timothy and clover hay declined 50 cents to $2 a ton in the past two weeks, while alfalfa prices were raised $1 to $1.50 a ton. The general tone of the market is steady with trade active.

Quotations are as follows: Alfalfa new, choice, $14@14.50; No. 1, $12.50 @13.50; standard, $11.50@12; No. 2, $10.50@11; No. 3, $8.50@10; No. 1, $9.50@10.50; No. 2, $11@11.50; No. 3,

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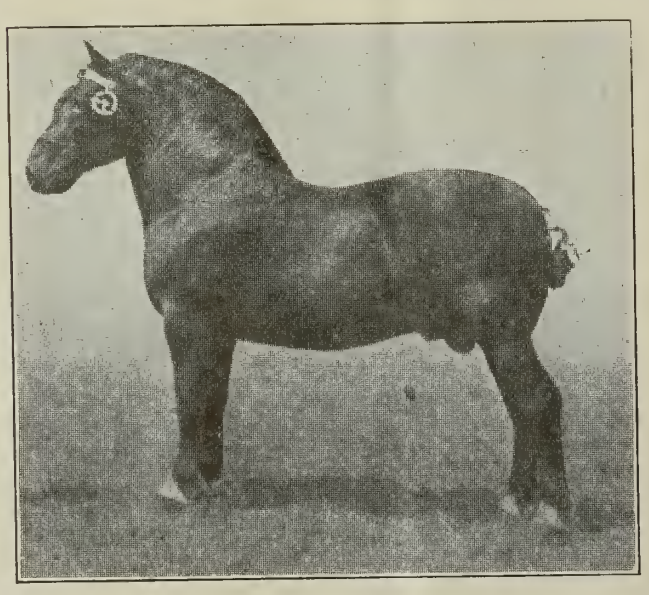
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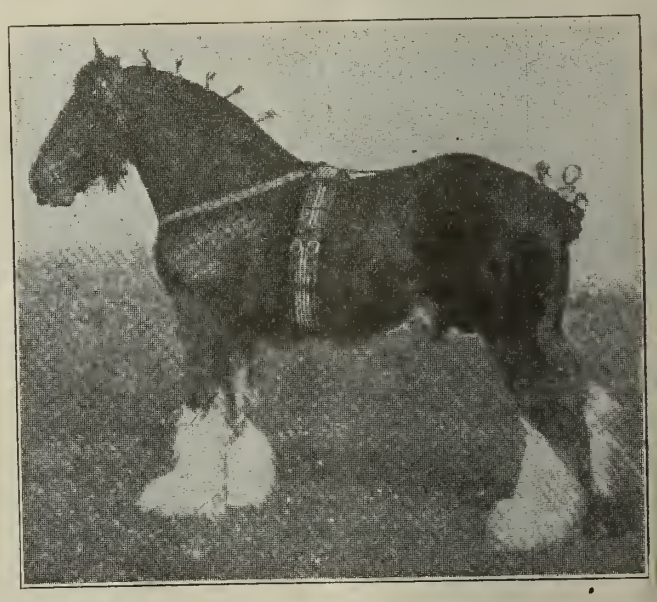
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DISPERSAL SALE

SHORTHORNS, DUROCS, STALLIONS, JACKS AND JENNETS.

If you are in the market for some good registered Shorthorn cattle or Duroc hogs, either young or matured stuff, will price cheap for next 30 days.

Have one classy grade combination stallion; one registered trotter, three good jacks and two good jennets, one with jennet colt by side. All priced to sell quick. Two of jacks are matured and No. 1 good mule jack; one is a coming two year old that will make 16 hands and be good enough for a herd header. One jennet about 15 hands and one 16 or over standard, with bone and body to match. All well colored and pointed except one of matured jacks which is a brown in color. This stuff must all sell soon, so get busy if you want a bargain.

Complete description and price of any above stock upon application.

CLYDE ROPER, ROUTE 7, FULTON, KY.

$6@7; timothy choice, $14.50@15; No. 1, $13@14; No. 2 $11@11.50; No. 3, $7.50@10.50; clover mixed, choice, $13.50@14; No. 1, $12@13; clover, choice, $10@11.50; No. 1, $8.50@9.50; straw, $4.50; packing hay, $5@6.

July Live Stock Receipts.

Receipts of live stock at the five Western markets in July were 473,900 cattle, 1,018,300 hogs, 744,900 sheep. This is a decrease of 128,000 cattle, 253,000 hogs, and 133,000 sheep. In the seven months this year the decrease was 478,000 cattle, 949,000 hogs and an increase of 311,000 sheep. All markets have shared in the decrease but Kansas City, St. Joseph and St. Louis to a greater degree than other markets, owing to the drought of 1913.

SWEET CLOVER SEED PRODUCTION.

To the American Breeder:—Owing to its hardiness and vigorous growing qualities, sweet clover is destined to become quite an important crop on dry lands and in the higher altitudes. The seed is somewhat scarce, consequently it brings a good price on the market.

In regions where alfalfa can be successfully grown, sweet clover should not be given a very prominent place in its agriculture, either as a forage or seed producing crop.

For the production of seed either the first or second growth of the second year's crop should be saved. The one to leave for the above purpose will be governed largely by the length of the growing season.

The time to cut sweet clover for seed is when three-fourths of the pods have become dark brown or dark in color. The crop may be harvested in much the same manner as alfalfa, the ordinary grain binder or header being used. Sometimes the crop may be cut with the ordinary mower, after which it is raked and stacked. When cut with the binder it is first shocked and stacked. When cut with the header the crop is usually sacked shortly after cutting. Good average yields range from two to six bushels per acre.—J. D. Marshall, Colorado Agricultural College.

SOUR SKIM MILK FOR CALVES.

That in summer time calves do as well on sour skim milk as they do on sweet will be interesting news to many farmers who have hitherto been kept from raising calves by the expense of keeping the milk sweet in hot weather. Experiments carried out by the Department of Agriculture, Washington, D. C., indicate this expense to be quite unnecessary. The calves will make as rapid gains on sour skim milk. In winter, it is true, this is not quite so important.

In calling the attention of farmers to these facts, however, the department at the same time emphasizes an important precaution. Unless the milk is produced and kept under cleanly conditions, it may become contaminated with disease-producing bacteria. Farmers should therefore allow the milk to sour quickly and then feed it without delay.

In the course of these experiments sour skim milk was fed to 22 calves, Holsteins, Jerseys, and Guernseys, at different seasons of the year. In no case did it cause digestive disturbances even when the change from sweet to sour milk was made abruptly when the calves were only a few days old. Moreover, no evil results followed the alternate use of sweet and sour. It seems, therefore, that the common idea that sour milk leads to scours is quite unfounded.

The calves, it was found, did not like the sour milk as well as the sweet, but in the majority of cases soon became accustomed to it. The aversion, however, increased when the milk was fed them at a low temperature.

CAR LOT MEAT ANIMALS AT PANAMA EXPOSITION.

We have just received from the live stock department of the Panama-Pacific Exposition a preliminary classification for the car lot exhibits. Classes are made both for the lard and bacon type of hogs but in cattle, so far, the classification provides for only fat animals, and the same is true of sheep. It will take about $4,000 to pay the first prizes and championship premiums alone in these classes, the first prizes in hogs and sheep being $100 per car lot and in cattle $200. In addition to this amount there will be required the money necessary to pay the second, third and fourth prizes, the lowest being $25 in hogs and sheep and $75 in cattle.

"BRISKET DISEASE," AN AILMENT OF HIGH ALTITUDES?

The Colorado Agricultural College has been conducting experiments on the so-called "Brisket Disease" of cattle, that occurs at high altitudes in this state, says Prof. I. E. Newsom, of the College. While these experiments are not yet finished, some of the details ought to be of considerable interest to those stockmen who have had trouble with the disease.

Two steers that were badly affected with the disease were shipped from Jefferson, Colo., to Denver. After being in the latter place for about a week, they were sent to Fort Collins. By the time they arrived there, they had entirely recovered. They were later sold to a feeder and were finally marketed in Denver at an exceptionally good price for beef. These steers fattened as readily as did the others in the same bunch.

Later, a calf was shipped by express direct from Jefferson to Fort Collins and on arrival at the latter place was somewhat dull, but otherwise appeared in good condition. Within three days he became normal and was in the course of some weeks returned to Jefferson. He has not so far developed the disease, although at the time he was shipped, he was in extremely bad condition.

This would seem to show that where it is at all feasible, animals with this disease should be shipped out to lower altitude and this is to be recommended when the trouble becomes serious.

The Station is trying out medical treatment, but this has not advanced sufficiently that we are able to make a statement.

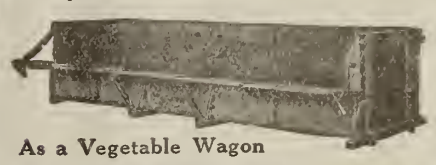
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As a Vegetable Wagon



As a Grain Tight Bed

Put a Melrose Bed on your own gears and you've got **15 wagons in one!** Use the same bed, **in different positions,** for hauling grain, hay, straw, stock, hogs, sheep, coal, vegetables, poultry, tile, fruit, fertilizer, wood, brick, lumber, cotton, boxes and barrels—yes, or a picnic crowd!

One Wagon Bed for Every Purpose!

This wonderful invention saves time, money, health and hard work, every day in the year. Does away with lifting racks and beds on and off—makes extra racks and special beds unnecessary.

Change in 2 Minutes Without Tools

So simple that any farm boy can easily make the change from one position to another in 2 minutes without tools. No rachet, springs, gears or cogs to get out of order.

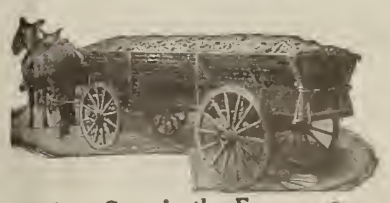
Melrose Convertible (15 in One) Wagon Bed



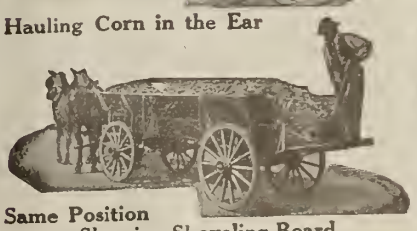
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The Melrose has tremendous strength and enormous load capacity. All metal parts are finest wrought steel—no cast iron. Steel bound and braced! Not a single nail in the entire bed! Grain-tight matched flooring bottom.

WHAT OTHERS SAY

Henry Pinkerton, Modesto, Ill.—"I could not afford to be without one for double the amount."

J. S. Hyde, McFall, Mo.—"I wouldn't take $50 for it if I couldn't get another.

Hundreds of other equally enthusiastic endorsements.

Will You Risk One Dollar?

We take the big end of the risk. We ship the Melrose complete on receipt of $1.00 as evidence of good faith. Pay the balance at the end of 15 days if thoroughly satisfied.

If its own merits don't sell it, ship it right back at our expense and we'll refund your dollar.

The low price will surprise you.

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Please send Melrose "15 in 1" Book, and details of $1.00 Trial Offer.

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A Department For Women

DO YOU BREAK THIS LAW?

THIS HOUSE IS QUARANTINED AGAINST WHOOPING COUGH. NO ADMITTANCE.

And yet, in spite of the above order, authorized by statutes of your state, obviously for the protection of your neighbors, do you permit your children to run at large and spread infection? Do you know that in so doing you are holding yourself liable to fine as provided by law and that it is only through the negligence of some worthless health officer that you escape prosecution.

Your children may have a mild attack of the disease, but this is no guarantee that the child next door will not develop the trouble in an aggravated form, which may prove fatal. How about that child with measles or whooping cough that you took to church when you knew that it had not entirely recovered from its sickness or the one that you smuggled into the moving picture show under cover of darkness? Do you know and realize just how serious these children's diseases are and just how many little lives are lost every year because someone is careless in observing quarantine?

We are not in the habit of thinking of whooping cough as a particularly fatal malady, yet in 1912 there were more deaths from this cause than from any other of the children's diseases save diphtheria. After whooping cough, measles is the most serious, then scarlet fever, and finally smallpox, making a total of 18,112 deaths under five years of age in this country from preventable causes in one year. During 1912 in the registration area of the United States, which includes twenty-three states and forty-seven cities, not included in these, the following number of deaths occurred among children under five years of age from the so-called children's diseases, all of which are preventable:

Diphtheria, 6,853; whooping cough, 5,357; measles, 3,617; scarlet fever, 2,223; smallpox, 62.—Walter G. Sackett, Bacteriologist, Colorado Experiment Station, in Agricultural College News Notes.

PATTERNS FOR WOMEN AND CHILDREN.

SPECIAL ANNOUNCEMENT. We will forward, on receipt of 5c, the Summer number of the Home Dressmaker, illustrating the latest embroidery designs, as well as hundreds of designs of garments for Misses, Women and Children, and containing two pages of hints on Home Dressmaking.

1016. Girls' Dress. Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3¼ yards of 44-inch material for an 8-year size. Price, 10c.

9997. Girls' Dress. Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3 yards of 40-inch material for an 8-year size. Price, 10c.

9999. Ladies' House Dress. Cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6¼ yards of 36 inch material for a 36-inch size. Price, 10c. The skirt measures about 2 yards at the lower edge.

9859. Ladies' Apron. Cut in 3 sizes: Small, medium and large. It requires 3⅞ yards of 36-inch material for a medium size. Price, 10c.

1006-1003. Ladies' Costume. Waist No. 1006 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt No. 1003 cut in 5 sizes: 22, 24, 26, 28 and 30 inches waist measure. It requires 9½ yards of 27-inch material for a medium size for the entire dress. This calls for TWO separate patterns, 10c FOR EACH. The skirt measures about 1½ yards at lower edge.

9773. Ladies' Dress with or without Chemisette. Cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. It requires 5½ yards of 44-inch material for a 38-inch size. Price, 10c.

1013. Ladies' Waist. Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3½ yards of 27-inch material for a 36-inch size. Price, 10c.

1014. Ladies' Skirt with Tunic. Cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 4⅜ yards of 44-inch material for a 24-inch size. The skirt measures 1¾ yards at lower edge. Price, 10c.



Pattern Coupon.

In ordering patterns, be sure and fill in name and address plainly, also number and size of pattern desired.

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HARMONY IN THE HENNERY.

Sometimes music will drive the blues out of the hennery quicker than anything else, writes Howard L. Rann, in Kimball's Dairy Farmer. We had a friend who used to inspire his hens to nobler endeavor by playing an accordion solo just prior to the moulting period. If this didn't work, he would have his daughter play "The Maiden's Wish" on the reed organ. A hen that is continually in tears over some fancied grievance, like being kicked in the Adam's apple by the hired man or stepped on by a Clydesdale chunk, will never fresco the haymow with home-grown fruit.—Kansas Industrialist.

ARTIFICIAL FERTILIZATION OF EGGS.

To the American Breeder:—We have been making some experiments along this line and have some living chicks hatched from eggs laid by hens which have never been allowed to run or come in contact with, or be treaded by a male bird. From what experiments we have made, I believe we can collect the semen from the champion Barred Plymouth Rock male bird at New York, Madison Square Garden Show, carry it to Missouri and then fertilize eggs from the champion pullet at the Missouri State Show if that pullet is in laying condition. Artificial fertilization of eggs may never be practical, but we learn other things as a result of work of this kind. We have been surprised to learn the length of time the male germs will live out of the body of either the male or female. We have allowed the semen to become perfectly dry, and then after two hours or more moisten it and find hundreds of them still living and moving over the field under the microscope. Our experience has led us to believe that about 5 per cent of the males used for breeding purposes are practically sterile; that is, that their germs are so weak that they do not fertilize or else the semen is lacking in male germs. We have living chicks hatched from eggs artificially fertilized, artificially hatched and artificially brooded. Some interesting facts are being developed with reference to this work and mention will be made of them in later reports.—T. E. Quisenberry, Superintendent Missouri Poultry Experiment Station.

A Litter of Scotch Collie Puppies

For sale; color sable and white. They will be sold at bargain prices, as I want to close them out. Also the mother of the pups for sale. They are from registered stock.

AMASA ROBERTS, Bentonsport, Iowa.

BABY SAVING CAMPAIGN.

To the American Breeder:—This is the time of the year for the public health officer and the charity worker to lay their plans for summer work with children. We have an idea that such work is necessary only in cities, but if we are to believe the government pamphlet on "Baby saving campaigns" the mortality roll in cities is going down while the death rate in rural districts is increasing.

This pamphlet tells of the work in different communities where the milk supply has been improved, and gives formulas of well-known baby specialists for prepared foods for babies.

ALFALFA
AS A MONEY MAKER

Rich alluvial soil is what is wanted for the successful growing of Alfalfa, the king of forage crops. The Red River Valley has this kind of soil in abundance—nothing better anywhere. We can recommend this land to well-to-do farmers who want something really good. Ample rainfall.

A CROP EVERY YEAR.

Write for free booklets and magazines to the Kansas City Southern Ry., Wm. Nicholson, Immigration Agent, 671 Thayer Building, Kansas City, Mo.

For Rent---1002 Acres

STOCK, GRAIN AND FRUIT FARM.
Located on the B. & O. S. W. Railroad; 138 miles west of Cincinnati; 200 miles east of St. Louis; 18 miles northwest of French Lick and West Baden; 15 springs uniformly distributed over this farm; 3 sets of improvements. Chattel property and crops will invoice about $11,000.00. Owner desires to sell half interest in same, give half of all receipts, and pay half for operating same. One of the best farms of the kind in the state. Hog cholera never known to this farm. This is an exceptional proposition for the right kind of a man. Will give long lease. Do not write unless you are able and mean business.

DR. G. W. HUNTER, Hamilton, Ohio.

Farm for Sale or Trade

160 acres 5½ miles south of La Cygne, Linn County, Kans.; 75 acres in cultivation; 5 acres new land cleared; balance timber and pasture; 20 acres more can be farmed by cutting off timber; 20 acres more by tilling. About 60 acres of farm lies on bottom, balance upland. New 4 room house; barn room for six horses; 6 acres hog pasture; plenty of water. Price $5,000. Could use good automobile, draft stallion, jack or other live stock. Terms to suit.

J. B. RING, Louisburg, Kans.

I HAVE SEVERAL TRACTS OF GOOD LAND
In Rock and Brown Counties, Nebraska, from 360 to 1,840 acres, that I will sell at $12.50 to $15 per acre, with small cash payment, balance ten years or more at 5 per cent. This land is where crop failures are unknown. Soil adapted to alfalfa, corn, potatoes and grain. Water cool and soft. Best of grasses. Excellent climate. Write for further particulars.

G. L. CARLSON, NORFOLK, NEB.

FOR SALE BY OWNER AT BARGAINS

Four choice irrigated alfalfa ranches in Colorado, with excellent water rights, adjoining good ranges; taken on debts. Call on or write

Wm. M. SPRINGER
621 Gas and Electric Bldg., Denver, Colo.

160-ACRE FARM FOR SALE.
Creek bottom land; improved; 40 acres in alfalfa; fenced hog tight; black sandy soil; good water; good buildings. Priced for quick sale at $10,000; will carry $3,500 at five per cent.

H. H. BURNS,
Argonia, Sumner County, Kansas.

240 ACRES
Good Oklahoma Land.
Improved; good water. Good reasons for selling. Price $16,000.

J. H. BRAKHAGE,
Rte. 1, Box 43, Lahoma, Okla.

WANTED—To hear from owner of good farm for sale. Send description and cash price. **D. F. Bush, Minneapolis, Minn.**

In the back are printed circulars in various languages which have been used successfully with our foreign women. The circular "How to save babies—It is not the babies born but the babies saved that count" has been widely copied.

Housing conditions, baby clinics, the value of the visiting nurse, and the use of local papers are all discussed.

This pamphlet may be obtained by writing to the Children's Bureau, Washington, D. C.—Charlotte A. Baker Colorado Agricultural College.

Showed 100,000 People How to Make Capons

To the American Breeder:—"Capon Day" is becoming a common occurence once each season in many poultry sections. Hundreds of letters are reaching me asking me for information on arranging a program for "Capon Day." As the object of the meeting is to find a profitable way to "Swat the Rooster," it is best to arrange with some one that is familiar with caponizing to give a short talk and demonstration on live birds. Caponizing has become so profitable and popular in the last few years that in almost every community there is some one that can be had for this purpose. It is always best to get a local party to do this if possible.

In the last few months I have lectured and given demonstrations at more than a hundred towns in Kansas, Missouri, Oklahoma, Arkansas, Texas and Louisiana. These "Capon Day Meetings" were all well attended; in fact, at many of them there were several thousand people in attendance. Altogether I am sure that I have explained and demonstrated exactly how to make a capon to more than one hundred thousand people in the year just passed. Many of these "Capon Day Meetings" were gotten up and the expenses paid by the Farmers' Institutes. I had more calls from this source than I could fill. Over in Missouri in connection with their series of field meetings the capon lecturers and demonstrations were featured and the necessary expense paid by the Missouri State Poultry Board. That prince of poultrymen, T. E. Quisenberry, arranged and planned the series of nine meetings in his principal poultry sections. The result was a big crowd in attendance at every meeting. I am certain that there was over two thousand people at every meeting and as many as five thousand at several. At Mountain Grove, where the Missouri State Experiment Farm is located, the public schools were closed so that the pupils could attend the meeting. At that place I had several hundred children to show and instruct about making capons.

Down in Wayne County, in Southeast Missouri, the county superintendent ordered every school in the county closed so that the teachers and pupils could attend the poultry meeting. The superintendent was on hand himself to see that they were all there and properly instructed. So much interest was stirred up at this meeting that a representative of the Kansas City Southern Railway, who was at many of the meetings, arranged for a special demonstration train over his lines and one car was fitted up for the poultry exhibit, and a large display of capons was featured. I was placed in charge of that car and gave the lecturers and demonstrations at twenty-six towns on that system between Kansas City and the Gulf. At every place I met several men and ladies who were just as expert at making capons as I, or any one else, and could have given the talk and demonstration on the subject equally as well. So I am convinced that a "Capon Day Meeting" can and should be arranged in every poultry growing section this fall. Modern conditions demand modern methods and caponizing is the only modern, profitable way to "swat the rooster."

Get busy and arrange for a capon day. Have a bunch of birds and have them in condition and of the proper size and condition to work. Select little roosters that are about like a quail in size or appearance. Get them before the comb and wattles begin to redden up or develop. Have them off feed for at least thirty-six hours; during that time be doubly sure they do not have anything to eat or drink. These two things are very important in making capons. If they get anything to drink they will be sure to bleed. If they do not drink they will not bleed. If they eat you will not have room to do the work. So be sure to keep food and drink from them for thirty-six hours. This will be no hardship to a chicken, as nature has provided him with a crop for carrying a supply of food and water that it takes nature thirty-six hours to exhaust. Good results cannot be expected if the operation is performed while food or water is in his system.

It is not necessary to have anyone to show you how to caponize. I believe the average person will learn it quicker and better to get out by himself and commence on a dead bird, one that has just been killed to eat, and practice up in that way. Follow the instructions that come with the tools that you must have to do the work with and anyone can do it. Many people are slow to take up anything of this kind and until they have seen some one do the work and realize how simple and easy it is they will not get started. Hence the value to the community of a "Capon Day."



Day Line to New York

TAKE one of the big, swift Day Line steamers the next time you go to New York and see how the cool, fascinating trip down the Hudson River relieves the journey. You will be in better shape for business when you arrive.

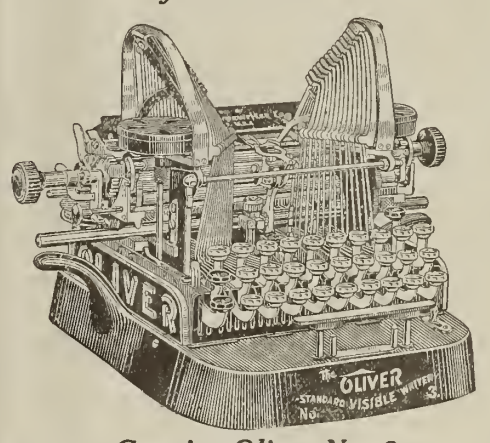
A boat from Albany at 8.30 a.m. EVERY DAY BUT SUNDAY, arriving at 42nd St., New York, at 5.30 p.m.

All through rail tickets between Albany and New York accepted.

Hudson River Day Line
Desbrosses Street Pier, New York

Let Us Send You This Great Oliver Typewriter!

Pay for It Like Rent



Genuine Oliver No. 3

On FREE TRIAL!

No Money Down!
No Collectors!
No Interest Charges!

13 CENTS A DAY and IT'S YOURS!

HALF REGULAR PRICE
We are able to make an amazingly low price to readers of the American Breeder on this invincible, regular model No. 3 Oliver, because we have undertaken to sell no less than 1,000 a month! And because of our astonishingly liberal selling plan, we are now selling hundreds a week all over the country. Get in on this great offer today!

USE IT WHILE YOU PAY
That is our plan. Get the machine. Then send us only $4 a month, and you'll own it before you know it. Don't pay rent on some cheap, out-of-date machine. The same money will make you the possessor of this genuine Oliver—the machine preferred by 183 railroads, by experienced writers and business men the world over. And it'll be earning its own way while you use it.

VISIBLE WRITING—UNIVERSAL KEYBOARD
The Oliver we offer you is a marvel of simplicity. Has the up-to-date features—visible writing, rapid escapement, perfect paper-feed, left-hand carriage return, light-running carriage, and the light, elastic key-touch—that have made the Oliver the wonder of the typewriter world. We issue a record-breaking guarantee that protects you for the entire life of the machine. Never has such a machine been offered at such a price before.

YOUR CREDIT IS GOOD
We trust you. We give you over a year to pay. We wait for our payments if you get sick or out of work. 18,000 customers have found us not only fair but extremely liberal. Under our generous offer there is no reason on earth why you should not own one of these fine Oliver Typewriters.

RETURN IT AT OUR EXPENSE
Get the machine today. Examine it at your leisure in your own home or office. Practice on it. See how easy it writes—what clear, clean-cut letters and manuscript it turns out. Then decide. If you don't want the machine, ship it back to us and we'll call the transaction ended. You won't be out a penny.

DON'T WAIT—SEND TODAY!
But don't delay. Fill out and mail the coupon NOW! We'll send you the genuine Oliver No. 3 Typewriter and with it a complete outfit—metal cover, ribbon, tools, instruction book, practice paper, carbon paper—everything you need. Don't send us a single cent. Just the coupon. It'll bring the machine for your free examination and trial. You can't afford to miss this great offer.

Sign and Mail TRIAL ORDER COUPON TODAY!

TYPEWRITERS DISTRIBUTING SYNDICATE
166 U-93 N. Michigan Blvd., Chicago, Ill.
Date.....

Gentlemen: Ship me an Oliver Typewriter, Model No. 3, for examination. If satisfactory, I agree to remit $4.00 after five days from the date I receive the machine as full payment for one month's rental and $4.00 each month thereafter, as rental for the use of the typewriter. When I have paid you $56.00 in this manner, the typewriter is to become mine. Until then the title is to remain in you. Otherwise I will return the typewriter to you at your expense.

Name .....
Address .....
References .....

Advertising Briefs

Dr. G. W. Hunter, Hamilton, Ohio, has a 1,002-acre stock, grain and fruit farm for rent and would like to get in touch with some one who is interested in this proposition. See the ad in this issue.

H. A. Schwatken, Hammond, Kas., is offering a bunch of jacks and jennets for sale, or trade, for land.

Clyde Roper, Fulton, Ky., is having a dispersal sale of all his Shorthorns, Durocs, stallions, jacks and jennets and will sell this stuff cheap for the next 30 days. He will give complete description of this stock upon application. Read the ad.

Worms kill millions of dollars worth of lambs and pigs. What can be done to check this enormous waste? You will find the answer in the Sal-Vet advertisement of this issue, and in Mr. Feil's liberal offer to feed all your stock 60 days at his risk. Sal-Vet is a medicated salt which has become the most popular worm destroyer and live stock conditioner on the market. Every pound is sold on a money-back guarantee and farmers living in towns where there is no Sal-Vet dealer can get enough to feed all their stock 60 days without a penny of pay in advance simply by filling out the coupon attached to Mr. Feil's advertisement.

No. state furnishes a better, "all around" demand for improved farm animals than does Oklahoma, and the Oklahoma State Fair is one of the best places to find the people who represent this demand. I. S. Mahan, secretary, will furnish full information on application.

Oliver typewriters are advertised in two places in this issue. Look them up.

The Edwards Mfg. Company's steel roofing brings permanence, safety and economy. Write the company at 826 Lock St., Cincinnati, Ohio, for catalog.

Eastman Kodak Company, America's greatest camera manufacturers, originated the kodak and made it famous. Write this company at Rochester, N. Y., for catalog and mention the American Breeder.

The Hudson River Day Line offers one of the most delightful river trips in America: Down the Hudson River from Albany to New York City in nine hours.

The Melrose Convertible Wagon Bed (15 in One) is one of the best labor helpers and time savers ever offered, especially for farms on which only one or two heavy wagon are kept. This wagon bed is sold on the fairest of terms. Read the advertisement and write for catalog to American Wagon Co., 305 Lincoln Ave., Dixon, Ill.

Rebuilt typewriters that will last, and do good work at very low prices are advertised by the Typewriter Distributing Syndicate. Read ad in this issue.

W. H. Thomas, Bluff City, Va., is offering some choice Percherons for sale, or trade for cattle. Mr. Thomas is offering this stock cheap, as he has other business and cannot attend to them.

G. L. Carlson, Norfolk, Neb., is offering several tracts of good land in Nebraska for $12.50 to $15 per acre, with small cash payment, balance in ten years or more at five per cent. Look this ad up in this issue.

G. K. & C. R. Dewey, Macon, Miss., are advertising in this issue land, stock and farm implements and feed for sale in Northeast Mississippi in order to dissolve a partnership. Look up the ad.

Amasa Roberts, Bentonsport, Iowa, has a choice litter of Scotch Collie puppies for sale, also the mother of the pups. He is offering these puppies at bargain prices as he wishes to close them out.

Amos Hanson, Collins, Iowa, is offering his Percheron stud colt for sale at $500. The ad appears in this issue.

L. W. Roth, Fredonia, Kans., wants to sell, or trade for one equally as good, his black registered Percheron stallion as his fillies are in the way.

O. P. Wilson & Co., Lock Box 489, Kansas City, Mo., report the heaviest July sales of Jacksorine in the history of the company. Evidently Jacksorine is making good.

Route 5, Box 25, Hector, Minn., is offering to trade an automobile for horses—registered mares or stallions. The automobile is a 1914 model.

John A. Edwards, Englewood, Kans., is offering a bargain in Mammoth jennets. He has 17 big black jennets which he wants to sell as he has other business to attend to. Also a few jacks for sale.

John T. Adams, Charleston, Ark., is offering his breeding barn and stock for sale. See his ad in this issue and then write him for full description.

Cook Farms, Lexington, Ky., are advertising a splendid lot of Kentucky jacks and saddlers for sale at attractive prices and give a guarantee with every animal.

Absorbine is sold by leading druggists at $2.00 a bottle, or sent prepaid upon receipt of price. Wouldn't you like a booklet on How to Treat a Blemished Horse? If so write the manufacturer, W. F. Young, P.D.F., 388 Temple St., Springfield, Mass.

"Astral King" is a household term among lovers of saddle horses. Have you noticed the advertising which the breed, as well as this horse, is being given by the famous stallion's owner, James A. Houchin, of Jefferson City, Mo.

F. P. Burnap, Kansas City, Mo., reports the sale, at good prices, of the high class young Percherons he has been advertising in the American Breeder.

A. G. Johnson, St. Joseph, N. Dak., has a carload or more of horses, geldings and mares for sale. See the ad. in this issue.

Get a kodak for the children—one that will really take real pictures—even though it costs so little you'll hardly believe it. The Eastman kodak ad. tells.

H. H. Burns, Argonia, Kas., is advertising a 160-acre improved farm for sale; 40 acres in alfalfa. He also has two large Percheron stallions, three and five years old, for sale or will trade one for a registered Belgian stallion; also a six-year-old Mammoth jack.

J. T. Taylor, Foley, Mo., has jacks and a saddle stallion for sale or trade.

D. F. Bush, Minneapolis, Kas., wants to hear from any one having a good farm for sale, with description and price.

J. H. Brakhage, Lahoma, Okla., has 240 acres of good Oklahoma land for sale; price $16,000.

Richard Sellman, Rochelle, Tex., has a new ad. in this issue. He is offering a choice lot of stallions and mares, weanlings to four years old, all Morgans, for sale at moderate prices. Anyone in the market for a good Morgan should get in touch with Mr. Sellman.

F. Gilgen, Eaton, Colo., is advertising a trotting stallion for sale, or trade for jack, Percheron, coach stallion or gaited saddler.

Cook & Brown, Lexington, Ky., are advertising a closing out sale of all their stock of saddlers, jacks and Percherons, to wind up the estate of H. T. Brown. Look for the ad. in this issue.

F. W. Schweiger, Olmstead, Ill., is advertising his stallion, "Stetson," for sale, and will include a $125 speed cart with this horse. He also has a black Spanish Tennessee jack for sale.

J. B. Ring, Louisburg, Kas., is advertising 160-acre farm in Linn County, Kansas, for sale or will trade for good automobile, draft stallion, jack or other live stock, or will sell for $5,000. Terms. The ad. is in this issue.

Louis Koenig, Solomon, Kas., has a black six-year-old jack advertised for sale in this issue; also Duroc hogs.

J. C. Robison, of Towanda, Kas., in writing of the success of his recent Percheron sale, states that he is thinking of taking out a show herd of Percherons again this fall.

A most practical corn harvester is made by the Process Manufacturing Co., of Salina, Kas. It will do almost anything that a corn binder will do and costs only a fraction as much. With it a man can cut and shock from four to six acres a day, and it is so simple in construction and operation that a boy can run it. It has been sold in every state in the Union, and has given universal satisfaction. It will pay for itself in less than one season, and is so compact and well made that it will last for years. If you will write them, mentioning this paper, they will send you full particulars.

A. A. Jolley, Fleming, Colo., has two carloads of three and four-year-old mules for sale.

O. P. Wilson & Co., of Kansas City, Mo., who make and sell "Jacksorine" have handed us the following letter to print: "I had a jack with bad sores on leg. I ordered one can of your Jacksorine and it cured him sound and well, and I sold the jack last year for a good price. Saw him this spring and it is still well and only a small scar left. If this is of any benefit to you, you can refer any one to me.—J. S. Cavender, Dukedom, Tenn.

KANSAS CITY'S HORSE SHOW OCT. 19-25.

Making the date of the American Royal Live Stock Show a month later than usual has opened the way for strengthening the revived Convention Hall Horse Show of Kansas City. The new backers of this old institution have selected the week beginning October 19 (the old "Royal" week) and thus favored they will, without doubt, pull off one of the most successful horse shows ever held at Kansas City.

Belgian Emporium of America

Largest collection of Belgian Draft Stallions and Mares in America. Home of Jules Remi, first prize Belgian stallion, Iowa State Fair, 1912 and 1913. Also some very good Percheron stallions and mares.

We have 100 pure bred mares and colts in 11 different pastures. We never had as large and as choice a collection of mares as at present. Come to Cedar Rapids or Iowa City, Iowa, and take the interurban to Lefebure Station, and telephone to Fairfax for auto to meet you at the interurban We defy competition in quality and prices.

Four large farms all adjoining; 7 large barns. Illustrated catalogue free.

H. LEFEBURE & SONS, FAIRFAX, LINN COUNTY, IOWA.

Paramount Stock Farm

Breeds and Imports

Percherons, Belgians and Shires



Home of the Iowa and International Grand Champion FARCEUR 7332 (72924), the greatest Belgian stallion in the world today. He is proving an excellent stock horse. Send your good mares to him and raise the best. Always a select lot of stallions and mares for sale at prices that cannot be beat for high class, sound, 2,000 to 2,500 pound horses.

WM. CROWNOVER, Hudson, Iowa.



Oak Lawn Stock Farm

Breeds and imports champion draft stallions and mares; Percheron, Belgian and Shire. All stock for sale at reasonable prices. Come and see them before you buy.

GEORGE EGGERT, Newton, Iowa.

WHITEOAK STOCK FARM



American Bred Percheron Stallions and Mares.

The best to be had of the breeder—can show sires and dams of most of them. Always a large number to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria, ten miles northwest of Bloomington, Ill.

A BRAND NEW IMPORTATION!

I was in France and Belgium all through May, making early, careful selections from the best stallions and mares to be found. These are now at my barns and ready for sale, along with some desirable American bred animals. It is a good time to buy.

LONZO McCLAIN & SONS, LIMA, OHIO.

THIRTY PERCHERONS AND BELGIANS



and one Shire. They range in age from 1 to 7 years; all sound and heavy boned; weighing from 1,800 to 2,200 pounds. There are 17 stallions and 13 mares. I will also sell my herd stallion, Jupiter 65723, coming 5 years old; weight, 2,200.

These stallions are all sold under a guarantee to be 60 per cent foal getters. I have four year olds that weigh 2,200; 2 coming 3 that weigh 1,800. Can sell a good ton stallion for $750; sound and right in every way; some a little higher, and some lower. I will sell at a bargain to early buyers. I have both imported and home bred Stallions and mares of all ages for sale.

PETER J. EGGERS, DENISON, IOWA.

COLT SHOWS IN NEBRASKA.

Nebraska horse breeders are lending encouragement to a big series of local colt shows to be held during August and September, and to which the mare owners are giving more than the usual attention. A material help in making these shows educational is furnished by suggestions as to rules, premiums and other matters of value to a colt show sent out by H. J. Gramlich, secretary, Nebraska Horse Breeders' Association, University Farm, Lincoln.

The shows afford opportunities for the owners to compare their own colts at close range with those of their neighbors. An opportunity is also afforded for comparing foals from the various sires of the community. Generally there are also colts which demonstrates the results either of good or poor care.

IMPORTED AND HOME BRED STALLIONS AND MARES. PERCHERONS, BELGIANS, SHIRES.

The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perche this year. See what we have before buying elsewhere. **Address Hart Bros., Osceola, Iowa.**

Percheron Stallion

For sale. Registered; black; 8 years old; large bone; good disposition and a sure breeder. Has booked over $1,400 this year. Must sell and will sacrifice.

WALTER ALLEN,

DUNLAP, Peoria County, ILL.

Percheron For Arablan

I want to sell or trade a big Percheron stallion for an Arabian stallion. Write me full particulars, describing your Arabian.

FELIX SMITH,

Downs, Kansas

What is the Percheron Ideal?

"Is there an ideal or standard whereby I can ascertain how near my Percheron stallion approaches the correct type?"—Idaho Subscriber.

"What are the standard measurements of the bone, heart, etc., of a good Percheron stallion? What should be the difference between heart and flank measure?"—Washington Subscriber.

The above two inquiries received at this office, were referred to Secretary Dinsmore of the Percheron Society of America, and the following article is his reply.—Editor.

To the American Breeder:—There is no scale of points nor set standard for Percheron horses, but there are certain characteristics which the most successful Percheron breeders and judges have agreed upon. The ideal Percheron horse has never been bred and probably never will be bred. The only satisfactory manner in which a man can familiarize himself with Percheron type is by attending leading fairs and expositions where the best Percherons of the world are assembled for competition, and by visiting the breeding establishments of those breeders who have been successful, in the judgment of a large majority of their fellow breeders, in producing Percherons which approach closely to the sought for ideal type.

It is true, however, that it is not possible for any considerable proportion of the Percheron breeders of the United States to attend such shows and expositions or to visit such breeding establishments. The next best resort is to study good photographs or cuts of the best horses and familiarize oneself insofar as possible with the characteristics of the horses. It must be frankly admitted that protographs are far from satisfactory, for defects in the character of the joints, particularly the hocks, which would be readily noticed by a personal inspection squarely on all four feet; then with a handful of oats induce him to lower his head as low as he can without bending his knees; the heighth should then be taken at the highest point of the withers, and properly should be taken with a measuring rod which has a spirit level in the crossbar so that the variations in the height due to unsteady holding of the measuring stand may be eliminated insofar as possible. Depth of chest equal to one-half the height is essential, for horses that have heighth without corresponding depth are in horsemen's parlance "cherry-pickers" and lack endurance. With this depth and heighth, must go proportionate weight, which varies according to the condition of the horse. A horse of this size in show condition will weigh from 2,000 to 2,200 pounds; in ordinary working condition will weigh from 1,800 to 2,000 pounds. The height, depth and weight are the first considerations. Unless a horse approaches closely to the standard set, he is not an A. 1 Percheron. If he possesses these points he should also possess in as high a degree as possible the ideal draft conformation, set of legs, feet, straight action, style and symmetry which characterize a Percheron in his best estate. Measurements are usually misleading, for a measurement which may be correct for one horse may be entirely wrong for another that is a good type. Viewing a horse from a side view, the back should be short from wither to crop; the loin broad and well muscled; the croup long and level; the shoulders sloping; the neck of good length and well carried and the head true to type and well set on. The body should be deep both in chest and at flank, the haunches heavily muscled and the



PERCHERON GELDING, MACK, 15 YEARS OLD, 16½ HANDS, 1,800 POUNDS; SOUND AND ACTIVE. PHOTO TAKEN AT THE END OF HIS NINTH YEAR OF STEADY WORK ON CHICAGO STREETS.

of the horse, might not be at all noticeable in photographs or their reproductions.

It is generally conceded by the leading Percheron breeders that a stallion is not up to standard unless he stands 17 hands in height or a fraction over and has depth of body equal to one-half his heighth. The measurement of a horse is difficult at best and measurements taken by different men may vary one or two inches even when taken in good faith. The correct method is to cause the horse to stand horse should stand squarely on his legs from a side view. There is no one thing which is more difficult to teach a beginner, than what constitutes a correct set of legs. It is well illustrated in the accompanying photograph of a 15-year-old gelding that has seen nine years of service on Chicago streets and that is still absolutely sound and right. The best rule for a beginner to go by in judging of a set of legs is to see that the horse stands squarely on his legs. An imaginary plumb line dropped from



MACK AT THE TROT.
(Note straight action and free flexion)

the point of the buttock should just touch the point of the hock and fall ½ inch behind the fetlock joint. This gives the correct position of the hind legs from the side. To judge the correct position of the front legs from the side, drop an imaginary plumb line from a point a little more than one-half way up the shoulder. This should pass directly over the forearm, knee and fetlock and fall just behind the front foot when the horse is standing squarely on his legs. From a front view the legs should be set straight, turning neither in nor out at the knees, fetlock or feet. The distance between them is gauged by the width of the horse, but the shoulders should be well set on so that the shoulder points are well covered. Horses that stand with their legs wide apart, whose shoulders seem stuck on the outside, resembling in a degree a prize-fighting bulldog, do not and cannot travel straight, for they are too wide apart between the front legs and they go with a rolling motion when trotting. From a rear view the hind legs should set straight with the hocks turned a little in. It is utterly impossible to make plain to anyone what the correct set of legs is in a horse without showing on the animals themselves the desirable and undesirable position of legs, but the accompanying photograph of the gelding referred to may help to make plain what is meant. The slope of shoulder should not be extreme but should be sufficient to give a good carriage of the neck and satisfactory slope of pastern. The gelding whose photograph accompanies this article has very good slope of shoulder, a well-carried neck and very satisfactory slope of pasterns. From a front view the breast should be wide and full and the shoulder blades well covered. Glancing past the shoulders, the arch of rib should be noticeable, giving the horse a round as well as deep appearance. From the rear the croup should be wide and heavily muscled, the haunches deep and heavily muscled and the gaskins or lower thighs the same.

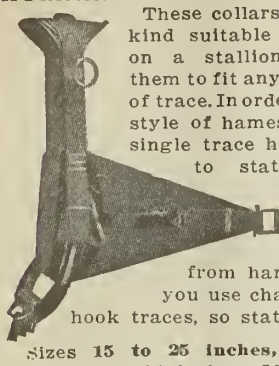
With the foregoing points which I have emphasized, height, depth, weight, conformation and set of legs, we must have wide, clean-cut joints in knees and hocks; wide legs below the knees and hocks due to heavy bones and tendons which stand well away from the bone, giving a wide, flat appearance to the legs and a razor-like shape, the tendons being so clearly defined as to remind one of the blade. The pasterns must be clean in outline, the feet of good size, round and of dense and durable texture. The depth at the heel should be equal to one-half the length of the toe; a broad, mushy, flat foot that is low at the heel is extremely undesirable, for these big feet are invariably deficient in density and wearing quality. Character should be evident in every joint. The skin should be thin so that the veins stand out on the thighs and forearm as they do in the accompanying photograph. The bone should be so clean that when a hand is passed down over the cannons the outline of the bone can be clearly felt beneath the skin and there should be no filling between the tendons and the bone. As the hand is passed down over the back of the front leg, it should be possible to make the finger and thumb almost meet between the tendons and cannon bone. Such quality is directly correlated with endurance and long service. With all the foregoing points, and, in fact, inseparable from them, action should be considered; the front feet should be picked up and carried straight forward; the hind legs well flexed, hocks carried forward in a straight line or a trifle in without any tendency to "spraddle." The accompanying photograph of the same gelding taken at a trot, illustrates the kind of action that is characteristic of the best type of Percheron.

The foregoing statement will help your Idaho inquirer in determining whether or not he has a horse which approaches the ideal Percheron type, but he cannot acquire any satisfactory knowledge on ideal Percheron type until he studies the best horses which the world has produced, as exhibited at our leading shows.—Wayne Dinsmore, Secretary Percheron Society of America.

HELPING SOLVE A BREEDER'S PROBLEM.

To the American Breeder:—Several years ago there were several good horses sold here to companies of farmers at too high prices—all the way from $2,000 to $8,000. Some were really good horses and did good to the country if not to the owners of the stallions. Some horse owners wanted too many mares to their horses so they bred for $12 to $15 to insure a standing and suckling foal. They got lots of mares and a few colts. They and the mare owners were disappointed. On the other hand, the stallion owner who bred mares at a price of $20 to insure a mare in foal did not get enough to pay him on his investment. The registered horses have either died or been sold for a little or nothing, and left several fair offspring in the neighborhood, and they are the stallions mostly used now. Most of these farms out here are mortgaged and the farmers hardly have time to be sociable. If you bring a grade horse to a man's place and breed for $8, $10 or $12 for a "stand-and-suck" foal, and not ask for the service fee until said colt is from one to three years old, and is a good work horse, then they will pay for same if you ask them for the money. While on the other hand, if a man spends $3,000 for a good horse and then has to compete with such terms as made by the grade stallions, it is not profitable. I have a registered four-year-old Percheron, No. 75800, which I stand at home, and my terms are $15 to insure mare in foal or $20 for a suckling foal, and I am not getting what mares I ought to get. I believe when a horse gets a mare in foal that is all a horse can do and there is no use to wait any longer for your money, as the stallion can't play nurse for the foal or mare. If we could get all

HUMANE STALLION COLLARS



These collars are the only kind suitable for working on a stallion. We make them to fit any size and kind of trace. In ordering describe style of hames you use. If single trace hames be sure to state width of trace and length of hame tug from hame to buckle. you use chain or Moeller hook traces, so state.

Sizes 15 to 25 inches, $7.50 each; larger than 25 inches, 50 cents extra. We prepay shipping charges.

BREEDERS' HARNESS & WHIP CO.
Williamson Bldg. Kansas City, Mo.

or most of the farmers or stock raisers to take the American Breeder then they would soon get educated and they would soon be ashamed to breed to any scrub horse or bull. I have seen some of my neighbors keep a bull that if he had been altered he would not have even made a good steer. Two or three men have thanked me for sending them the Breeder, and I think it is the best way to advertise a stallion, and this winter when I get some time I will try to get all of my neighbors to subscribe, as I think it is the best paper on that subject.—A. B. Mecklenberg, Lincoln County, Wash.

QUESTIONS AND ANSWERS

(Continued from Page 7.)

but she did not settle, and the man sent her back today. I washed her out with clean, warm rain water and there was about a quart of liquid came from her. Why did she throw off so much at once? After she got through straining I bred her and also used a capsule on her. Am I doing the proper thing with this mare?—Illinois Subscriber.

REPLY—You speak of "clean warm rain water." Please explain how you know that this water is clean. Have you ever seen anything in this paper about using "clean warm rain water" without having it boiled? Your treatment is perhaps as bad as the disease. We have made mention of this fact on many occasions. Perhaps you will understand some time what it means to boil water. You cannot expect to have any results by using water which has not been sterilized by boiling. We will ask you to kindly read the article on page 3 in the April 5 issue, and read it carefully.

1212—ANTHRAX—Will you please give symptoms of charbon (anthrax)? Do they have a cough with the disease? Please give a remedy and treatment of the disease.—Texas Subscriber.

REPLY—It would only be taking up valuable space in this paper to give a full description of the fatal disease known as anthrax or charbon. A disease of this character needs the personal attention of a qualified veterinarian who can give his best skill to the work. Anthrax is a very fatal disease unless in the carbuncular form. It is a disease that can be prevented by vaccination and this should be practiced whenever it appears in a locality.

1213—INCOMPLETE SERVICE — I have an imported horse; a good individual. He is a keen server, but does not complete the service. He seems to discharge a little in the mare as nearly always he withdraws a little; it is thin and stringy. After coming off a mare he will stand around for a few minutes then stretch out as though he was going to pass water, and without an erection, he will drop about a tea cup full of semen on the ground, which is a thick, whitish looking stuff. Once in a while he will make a complete service on a mare. Can you tell me if there is anything to do for him?—Idaho Subscriber.

REPLY—We do not understand why this horse should discharge after a service and without an erection. It would be well to use a microscope on this fluid and see if there are any spermatozoa in it. It would be well to examine the semen in the mare after the service has been made. We believe it would be well to have a veterinarian make a personal inspection of this stallion by placing a sterilized rubber tube up the urethra in search of a stoppage.

1214—COLT GIVES MILK—I have a customer that has a mule colt five weeks old that is giving milk; commenced when the colt was one week old. You can milk the colt with your hand and if you don't milk her the milk will drip from the teats. Tell us what is the cause of this freak.—Texas Subscriber.

REPLY—These are not very unusual cases. A milk flow may be stimulated by local manipulation such as occurs when a person because of the gentleness of a colt or calf repeatedly goes through the process of milking it. Again it must be remembered that the function of the udder is capable of being stimulated by what is consumed; that this organ is a great channel for elimination of substances taken into the body, and that in some way its activity is brought about through some stimulating force, from this source, and a milk flow results. After the flow is established it is sometimes very difficult to dry the animal off. The same measures should be resorted to that one exercises in drying off a cow, i. e., milking out only enough milk to keep inflammation from developing, giving scanty rations of a non-milk producing sort, etc.

1215—CHRONIC LAMINITIS—I have a Percheron stallion five years old that became stiff late in the spring. I worked him on light work through the breeding season and until he began to get stiff. When turning him around he walks his front feet and sits back on the hind feet without stepping. He seems stiff in both front and hind legs, and limps at times. Please give me your advice.—Kansas Subscriber.

REPLY.—We suspect from your description that your stallion contracted laminitis and by this time having become chronic, you will find it very difficult to entirely cure him. His feet (fore) should be soaked for several days in a mud bath so as to soften them up well and remove as much inflammation as possible from them. After this apply some good blistering agent about the coronet of both fore feet and at the end of two weeks soak and blister again. Shoe with a heavy bar shoe set pretty well back at the toe of the roller motion type.

1216—HORSES RUB TAILS—I have a dozen horses from one to ten years old; they have good pasture of wheat grass and buffalo grass; plenty of pure well water and all the salt they want. They are in good flesh but will back up against a tree or post and rub their hips and rumps, sometimes peeling off the hair in patches as large as the palm of the hand. Please tell me the cause of such rubbing and the remedy, if any.—Nebraska Subscriber.

REPLY.—Animals that rub as described usually are infested with parasites either internal or external. The local application to the parts of a two per cent solution of creolin occasionally will usually rid the animal of the pests locally. Give each full grown animal that rubs an ounce of aloes in bolus or careful drench and look for worms among the discharges 24 to 36 hours afterwards. Add about three-fourths sifted wood or cob ashes to the salt.

1217—SPLINT—I have a nice four year old horse that has what is called a splint. It has only been on him a short time. Can it be removed or had I better let it alone? Some say it does not injure a horse only his looks. What is a cure for it, or is it incurable? Any information will be greatly appreciated. —Montana Subscriber.

REPLY.—Unless a splint causes lameness there is not much gained by treating it. A little hand rubbing with the application of tincture of iodine once a day will gradually stimulate its absorption. Remember this is a bony development so the reduction of the enlargement is necessarily a slow process.

1218—SEMEN IN THE UTERUS—We own a registered Percheron stallion seven years old; big, strong and quick, ready server. He has moved about 40 miles a week and has covered 50 mares since April 1st. On two or three occasions during that time he has covered three mares in one day, well strung out. Sometimes in coming off of a mare he will lose about two ounces of semen; not often. A few of his mares that have been coming back two or three times, we have undertaken to use the impregnator on. In some of them we found semen in the vagina and filled the impregnator to the extent of at least six ounces, which we placed in the uterus; on other mares we would not find a drop in the vagina and the cervix would only be open so as to admit two fingers. The question is, does he place all the semen in the uterus through such a small opening, or doesn't he discharge? This morning I bred him to a mare for the third time this season. On coming off I tried to use the impregnator and couldn't get any semen from the vagina. The os was open so as to admit two fingers. I couldn't feel any in vagina. Did he place it all in uterus through an opening that would only admit two fingers? Could it be possible that this stud is masturbating in the night to such an extent that he doesn't discharge? We never see him misuse himself in the day time. Under microscope his semen showed 40 spermatozoa in a drop the size of a pin head. What shield would you advise? He stands in a box stall with horses on all sides, with light and plenty of air; is very quiet and kind; has grass for about one hour a day.—New York Subscriber.

REPLY.—Stallions which discharge directly into the uterus are the surest producers. Those which discharge in the vagina are not very sure. You ought to be thankful that you did not find any semen in the vagina. Practically all of the breeders who use artificial means get the semen out of the uterus. That is the proper place. The opening was sufficient to admit the fluid.

1219—STRANGLES—My horses have what is termed distemper. Some will swell in different places on the body while others will neither swell nor cough, but just go all to pieces. What can I do to get rid of it? And what is it?—Kansas Subscriber.

REPLY.—These cases need the personal attention of a qualified veterinarian. Such cases are best treated by trying to prevent the disease among those not yet affected by using bacterins. Bacterins along with other appropriate treatment will prove helpful in treating such animals as are already sick. It is important to arrest the development of the abscesses for the reason that they are liable to form within the body where they may destroy life. Such internal abscesses may be present in those animals that are now in a bad way and are not showing the usual external signs of the disease.

1220—RUPTURED BLOOD VESSEL—I have a standard bred trotter and while serving a mare he bursted a blood vessel in his penis. What is the best thing to do for him? How long will I have to wait before I can serve a mare with him? Is it apt to happen again or will it never be safe to serve a mare with him? He is very keen about serving.—Illinois Subscriber.

REPLY.—You do not state the evidence of a ruptured vessel; whether there was hemorrhage from the urethra or whether there was something else that took place that caused you to think a vessel had been ruptured. At any rate you had better discontinue the service of this horse for several weeks in order to be certain that he fully recovers.

1221—MARE KNUCKLES—I have a mare that knuckles. I have shortened her toes and raised her heels but she still knuckles. What can I do for her? —Missouri Subscriber.

REPLY.—Have her examined by a good, competent veterinarian with a view of having her back tendons fired. She may have gone to that point where it will be necessary to sever these tendons so as to permit the foot and limb assuming its normal position. Your veterinarian after making a personal examination of the case can advise you right in this matter.

This Percheron Stallion



(Reg. P. S. A.), seven years old; black; for sale at a bargain, or trade for Percheron stallion equally good; Polled Durham cattle or good Percheron mare. Reason for sale has fillies up to coming four year old here.

FRUIN BROS.
Iroquois Co., Gilman, Ill.

Percheron Stud Colt

For sale. Coal black; a perfect model; recorded in P. S. A.; sound; he can't be beat in Iowa; his breeding is good enough to head any herd. Will be two years old September 14, 1914. Price $500.

AMOS HANSON, COLLINS, IOWA.

Choice Percherons

For sale or trade for cattle—three Percheron mares with colts at foot, one colt by the great horse, Victoria, the sire of the champion, Pink. Mares weigh from 1,800 pounds to a ton. Colts sired by ton imported horses; one of mares imported. Mares and colts all blacks.

One dark brown Percheron stallion, six years old, weight a ton. Stock all registered in P. S. A. This bunch will be sold cheap, as owner has other business and cannot attend to them.

W. H. THOMAS, BLUFF CITY, VA.

FOR SALE OR EXCHANGE

FOR ONE EQUALLY GOOD.

One black registered Percheron stallion. Good in every respect; bred from imported stock; is 16¼ hands high; weighs 1,750 pounds in moderate flesh. A good sure sire, and colts to show, but many of his fillies will be old enough to breed and I must have another horse. If you are interested, come or send full description and breeding of stallion you have to trade.

L. W. Roth, Owner, R. 1, Fredonia, Kas.

ROYAL BELGIAN STALLIONS.

The best collection of Belgian draft stallions, 2 to 4 years old, that was ever imported to Texas, for sale at reasonable prices. Three blue ribbon winners, a champion and a sweepstake winner. Can be seen in Galveston, Houston and at my farm at Cedar Bayou. All first class breeders and well acclimated. **LEON VAN MELDERT, Cedar Bayou, Harris County, Tex.**

CLYDESDALE HORSES

Stallions and mares of all ages for sale.

Also Shorthorn Cattle.

ALSO SHORTHORN CATTLE.
Route 2, Plainfield, Ill.

W. A. DeMerritt
Route 2, Plainfield, Ill.

TWO IMPORTED REGISTERED MARES.

For sale. Scaling over two tons. One black; 7 years; an International prize winner; other gray; 13 years; a Springfield championship winner. Both sound, clean, unblemished; good breeders and workers of oustanding class as their show records evidence, and again in foal to Jupiter 11. $1,200 for pair.

W. T. WILKINSON,
Eureka, St. Louis County, Mo.

BELGIAN, SHIRE AND PERCHERON STALLIONS

and mares, also Standard bred stallions and mares, $200 and up. E. P. Hamilton & Sons, Garden Grove, Ia. (Mention this paper). 23 miles S. W. of Charlton, Ia., 82 miles south of Des Moines, Ia., at Leroy.

Land and Stock For Sale

In prairie belt of Northeast Mississippi, to dissolve partnership; 400 acres inclosed with a 4-foot American fence; 545 acres, two-thirds inclosed and cross fenced. A car of draft bred mares and colts; French draft stallion; sheep and hogs; implements and feed. Immediate possession. Good, permanent pastures; eight miles on pike to county seat and creamery. See Farm and Fireside, July 18, page 5. Subject to prior sale; $35 per acre; equipment included.

G. K. and C. R. DEWEY, Macon, Miss.

AUTOMOBILE

TO TRADE FOR HORSES.

One, almost new, 1914 model, 35 H. P. 5 passenger automobile, for registered draft mares or stallions.

Route 5, Box 25, Hector, Minn.

Horses for Sale

Car load or more of well bred horses, geldings and mares from 3 to 7 years old, weighing from 1,200 to 1,600 and over; gentle. Nearly all have been handled and some are well broke. Address,

A. G. JOHNSON,
Box 14, St. Joseph, No. Dak.



FIFTY STALLIONS AND MARES.
$250 to $1,000 Each.
Write for my illustrated Circular telling why I can save you money on the purchase of Percheron or Belgian stallion or mare.
A. W. GREEN,
Middlefield, Ohio.
R. R. Sta., E. Orwell, on Penna. Ry., between Ashtabula and Warren.

FOR SALE OR TRADE

Two large, handsome, registered Percheron stallions, three and five years old, for sale or will trade one for registered Belgian stallion.
Also 16 hand registered Mammoth jack, 6 years old; second prize jack in the American Breeder Jack Show of last summer. Will sell to some one wanting an extra good one.
H. H. BURNS,
Argonia, Sumner County, Kansas.

EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Ponies for sale. W. H. Fulcomer, Belleville, Republic County, Kansas, Member American Shetland Pony Club.

1222—UNDEVELOPED TESTICLE—I have a good stud colt, about six weeks old, that I was contemplating keeping for a stallion, but I find that one side is not properly developed, the seed being soft. Do you think it would be better to cut this colt or do you think it would outgrow this deformity?—Colorado Subscriber.

REPLY.—We take it for granted that your inquiry has reference to a purely bred colt and a good individual, but if otherwise, we advise cutting him in suspicion. If a good, pure bred colt you are justified in giving him a chance as there is plenty of time to think about the knife up to the time he is two years old, and even later. It frequently occurs that an undeveloped organ at this age will turn out all right if given time. He would not necessarily be unable to get colts even if the testicle failed to develop.

1223—BAD RESULTS FROM DEHORNING—About two months ago I dehorned four cows and one horn on one cow has been running ever since; it gathered once and broke and run out at her nose. I have used poultices and washed it out with a syringe with carbolic acid and used peroxide in it, but they don't seem to do any good. I had a full blooded Jersey bull which got cross and I had to dehorn him about two weeks ago, and one of his is running, so I would like to know if there is anything I can do for them to heal them.—Oregon Subscriber.

REPLY.—Cases that behave as the ones complained about are frequently not cut close enough. Shorten the horn to proper length if this is the case. Again, mischief is caused by flies especially those responsible for the screw worm. Make a careful examination for these pests if they are common in your locality. Clean up the parts with a solution containing a mild antiseptic; do not use it too strong. A one per cent solution of creolin you will find very good in these cases. Do not permit strong irritants to run into the cavities of the head. Follow the cleaning up process with iodoform and calomel, equal parts, which may be applied by dusting on with a small pepper box. Apply two or three times a day. If flies persist in annoying the animals, a little pine tar carefully applied about the wound will keep them away.

1224—HOG CHOLERA—I am bothered with some disease among my pigs which has caused a heavy loss and would like to have you answer a few questions. A few of my neighbors have the same trouble with their hogs and are losing a good many. My pigs get this disease while small; they have it when as young as two weeks. They have a diarrhoea. Their stool is thin and of a white color; they have a cough; hair looks rough; skin seems to get wrinkley; tail hangs straight down; stand humped up with head down. They do not have much of a desire for feed; in fact, will not eat hardly anything when they are bad. Old hogs do not seem to be affected with this disease. Some say that this disease is cholera, but a good many say that if it was cholera it would cause the death of our entire herd. I am of the opinion that it is white scours, but am not sure. How shall I manage my brood sows this fall to keep the disease from causing heavy loss again? We opened one of the worst of our pigs and it showed ulcers in the bowels.—Ohio Subscriber.

REPLY.—It is quite likely that the disease in question is hog cholera in a mild, chronic form, which is a form it assumes some seasons. The presence of ulcers in the bowels is one of the good evidences of chronic hog cholera. In case of the slow going, chronic type of hog cholera, many cases will recover if properly fed. Besides liberal use of serum and exclusive fresh milk diet will aid in recovery. White scours does not attack other than young animals, i. e., small pigs. Have your veterinarian conduct a few careful autopsies and there should be no reason for not definitely deciding on the character of the disease.

1225—SLOW JACK—I have about 30 mares and bought a three year old jack in the spring of 1913 to breed them to. I tried for some time to get him to breed, but he would not do a thing until I got a jennet; as soon as it came in sight the jack was an entirely different animal and he was ready and bred the mares as quickly as a stallion for ten days or two weeks until I bred the jennet; then after breeding a few more mares he got slow and with rainy weather he quit until another jennet in heat livened him up for a few days then he quit completely and the jennets had no more effect on him. Later on in the fall I secured an old jack that is a noisy brute, but I cannot get foals any more. My young jack came to life again for two weeks the same or better than for the jennets, and again he quit. I prepared a box stall and a seven foot board corral, 24x48 feet, and put him in it last December and kept him in where he saw no other stock for three months, and when I took a mare in to to breed he seemed rather excited, but would not get ready until I brought the old jack in then he was up and ready at once, and from April 17th to June 4th he made 23 covers, and has done nothing since. The services were from two days to three and four days apart. When he quit the last time he acted as though he wanted to serve, but could not get an erection. He would readily jump on the mare, but when he did get an erection and would start to the mare it would fall and he could do nothing. Now when his penis gets about half out he will shake his head or raise his tail and draw it up quickly. This is my first experience in handling a breeding animal, although I have been with stock all my life and have no trouble in handling them. Please tell me if this is a common trouble with jacks, or is it possible he is masturbating? What is the remedy? I have never seen him act like he would masturbate, but have noticed at different times after taking the mare away without service he would get up a good erection and he acts very timid or bashful like. For goodness sake tell me what to do if you can to get him to work as he is a fine animal. In appearance this jack is in first class physical condition; he is fat and sheds off slick; has never been sick, but I give him a physic last year that affected him for a few days and another one a few days ago, but as soon as the effects of the medicine is gone he is the same as before. I have always been kind to him and treated him gently.—Idaho Subscriber.

REPLY.—Evidently your jack has associated with jennets during his early life; he has formed a likeness for them. Since you have spoiled your jack with a jennet you may yet get some results by taking the urine from a jennet which is in heat and placing it on the mare's tail and allowing the jack to smell it. If he will serve by this method you can keep the fluid corked up in a clean bottle for a considerable length of time. Be very careful with him as such jacks are easily stopped. Always have your mare in a good, substantial place so that she will not cause any disturbance. Trouble is always expected with jacks which have had much association with jennets during their early life. If a jack never knew there was such a thing as a jennet or a mule, they would serve promptly in nearly every case. If you can get him to work with the jennet's urine, try to avoid having any jennets or jacks around as a stimulant for him. If everything else fails, place a jennet in the stall next to the mare where he can see her, but do not allow him to tease or serve her. The reason he has failed to finish the service when started is probably the result of the mare making some disturbance which frightened him. It might be well, on suspicious occasions, to use a twitch on the mare in order to keep him working well. This, however, is not good advice in ordinary cases, as mares should be as quiet as possible during natural service.

1226—PASTURING CANE—We are running about fifty brood mares on a pasture of amber cane and Johnson grass. Have been told that cane is a dangerous feed, causing abortion, especially the second growth. Have also been told that such is not the case until frost has attacked it. Will you please give me your opinion?—Texas Subscriber.

REPLY.—It is claimed by many observing breeders that cane when used as an exclusive ration for roughness is inclined to provoke abortion in mares. It is always a good plan when anything outside of the regular grasses is used for this purpose to feed it in moderation. When this is practiced very few complaints are made. In your particular case it would be well to shift the animals to some other feed a part of the time. For instance, if they are permitted to fill up during the forenoon on some known to be safe provender, it will greatly reduce



THE WAR TEST

will show how intelligence, endurance and perfection of hoof, bone and sinew have been lost from the horse stock of those sections which have not had a chance to know the superior qualities of the

American Saddler
Typified in That Famous Stallion,
Astral King

For more information about this, the most beautiful breed of horses in the world, write—

JAMES HOUCHIN, Owner of ASTRAL KING,
Jefferson City, Missouri.

GOOD JACK WANTED.

I have a few young jacks and 17 jennets and must sell the bunch at once or make some trade to get a jack not akin and good enough to breed the jennets to. They are big, black, mealy nosed and good.

JOHN A. EDWARDS, Englewood, Kas.



KENTUCKY JACKS AND SADDLERS.
A splendid lot of big bone, Kentucky mammoth jacks from colts to six years old. A fine lot of saddle stallions, mares, colts and fillies. We are making very attractive prices to parties who buy in the fall. A guarantee with every animal sold. Home grown blue grass seed and cedar fence posts.
COOK FARMS,
Box A. 436, Lexington, Ky.

"STETSON" A-2788
THOROUGHBRED STALLION

For sale. He is a dark bay, blaze face, 17 hands high; is in good condition and plenty of colts to show. He was foaled in 1907 in Lexington, Ky. Will include a $125 speed cart with this horse.

I also have a black Spanish jack, Tennessee bred; stands 14.1 hands high; 9 years old; plenty of colts to show. Will sell this stock cheap, as I am leaving the country.

F. W. SCHWIEGER, OWNER,
Olmstead, Ill. Box 49.

REGISTERED MORGANS FOR SALE.

A choice lot of young stallions and mares, weanlings to 4 years old. Weanlings and yearlings can be crated and delivered to any point by express at a moderate price. Can sell fillies and stallions of different breeding that would be suitable to mate together. Could sell a car load of registered mares and fillies that have been bred to registered Morgan stallions, at a very moderate price. Most of my young stock is out of The Admiral. Headlight Morgan is now at the head of my stud and I am expecting at least 40 colts from him next spring.

RICHARD SELLMAN, Rochelle, Texas.

BLACK HAWK MORGANS.

For sale, or will exchange for young, small, unbroke range horses, six registered black stallions; two matured; 15½ hands; 1,200 pounds; two, three years old and two, two years.

E. F. BROWN, DERBY, IOWA.
R. F. D. No. 2.

SADDLE STALLION, PERCHERONS AND 10 JACKS.

For sale. Registered saddle stallion by the Great Chester No. 10; sound and a good breeder. Two, two-year-old registered Percheron stallions and ten jacks from yearlings to five years old; from 14½ to 16¼ hands high for sale at reasonable prices. Write your wants or come and see me.

W. L. Graham,
Mackville, Washington County, Ky.

Hackneys, Jack Stock and Percheron

FOR IMMEDIATE SALE.

Four Hackney mares; three Hackney stallions; one 2-year-old jack; two jennets; one Percheron stallion. All choice stock.

CHARLES G. MUNROE, Rushville, Ill.

JACK---DUROC HOGS

For sale. A black jack; light points; six years old; 15¾ hands high. Also Duroc hogs.

LOUIS KOENIG, Solomon, Kans.

FAIRLAND JACK & JENNET FARM.

40 head of fine registered jacks and jennets for the fall trade. I raise most all my jack stock and can sell them cheaper than any man that deals in them. My jacks are all black with white points; in age from colts to 8 years; in sizes up to 16 hands. Formerly of Flemingsburg, Ky.

U. G. SAUNDERS, FAIRLAND STOCK FARM, LEXINGTON, KY.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address

J. C. HUCKSTEP, Eolia, Pike County, Mo.

JACKS AND SADDLE STALLION

FOR SALE OR TRADE.

Jacks are 14 and 15 hands high; right in every way. Saddle stallion is 16¼ hands high. Will trade part or all for good automobile. Will sell cheap or will consider anything on a trade as I am going out of the stock business.

J. T. TAYLOR, FOLEY, MO.

JACKS.



20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.

Phil Walker, Moline, Elk County, Kas.

JACKS AND JENNETS

ALWAYS ON HAND.

Large boned black Mammoth jacks, 15 to 16 hands; registered; 40 miles west of Kansas City on Union Pacific and Santa Fe railroads.

AL. E. SMITH,

LAWRENCE, KAS.

A BARGAIN

In Mammoth Jennets

I have 17 good big black jennets, which on account of other business, I want to sell. There is a bargain here for somebody who has the right kind of a jack to breed them to. A few jacks for sale also.

JOHN A. EDWARDS, Englewood, Kas.

A Bunch of Jacks

and

A Bunch of Jennets

For sale, or trade for land.

H. A. SCHWATKEN, Hammond, Kans.

BIG MAMMOTH JACKS AND JENNETS.

For sale. I have some good jennets which are kin to my herd jack, for sale at a bargain. Also young jacks, one to coming four years old, and the large, big boned Poland China hogs, breed sows and boars old enough for service, and pigs. Seven miles North of Monett on Frisco R. R., and six miles Southwest of Hoberg on Mo. Pac. R. R. Write for prices to

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the chances for mishap in the event they are turned into the field you are now using during the afternoon. If this practice was more generally followed in all cases when a sudden change of pasture is made or when the animals are turned to feed that is more or less dangerous, it would lessen the loss. First, fill the animals up while hungry with feed they are accustomed to and known to be safe and then turn upon the questionable feed for a short time at first, which time may be increased as the animals grow accustomed to it. In this way pasturage that often proves to be rank poison may often be utilized with safety.

1227—MALIGNANT OEDEMA—One week ago I had a fine, large yearling heifer that came home swollen in the brisket. She had always been well, but not too fat. The brisket kept swelling worse all the time. I thought it was snake bite so I lanced her and put on turpentine. She didn't seem to suffer much, but wanted to lie down; her eyes looked wild, but at times they looked better. She drank some water and died in about ten hours after I first saw her. I saw her the day before also. Just a week from the day she died my best two year old heifer swelled in the stifle. She seemed all right in the evening and when I went out to milk in the morning she was swollen a little and jerked very badly. I saw she was just like the other one only swollen in a different place. I lanced her and she bled pretty good, then seemed a little better; she didn't jerk so much. The other one was also better after she bled, or seemed to be for a little while. I used hot turpentine stupes for two hours and she swelled from the hoof up to the top of her back. I didn't give her water and walked her around as long as she would walk. She would lie stretched out on her side. She acted just like the other one, and as she was at home I know she wasn't snake bitten. She died in the evening after being sick all day. They had both been vaccinated for black leg early in the spring. The two year old had a calf a month ago and was bred a few days before she got sick. There is no veterinarian here and we have never seen such a case before. Please give me any information you can about these cases. I am worried for fear I will have more sick cattle. The cow vomited about a gallon of watery looking fluid before she died. —Wyoming subscriber.

REPLY.—While there is a possibility that these swellings might ha been occasioned from the bite of snake, yet it does not appear pr able. Again, it is quite likely would have recognized the disease h it been black leg. It is not often t black leg affects animals of the mentioned, especially is the compla rare that animals of this age are first to show symptoms of the disea The complaints are more frequen made of the younger stock. A disea closely resembling black leg is cal malignant oedema and it is about fatal as black leg. It is occasioned a particuar germ gaining access to subcutaneous tissues at the point swelling where they produce a gr deal of infiltration of the parts giv rise to enormous swelling. Very lit can be done by way of internal tre ment. The free use of the knife on swelling so as to admit the air h been found to be of as much va as any one thing that can be done. has been stated, these cases are clined to be fatal.

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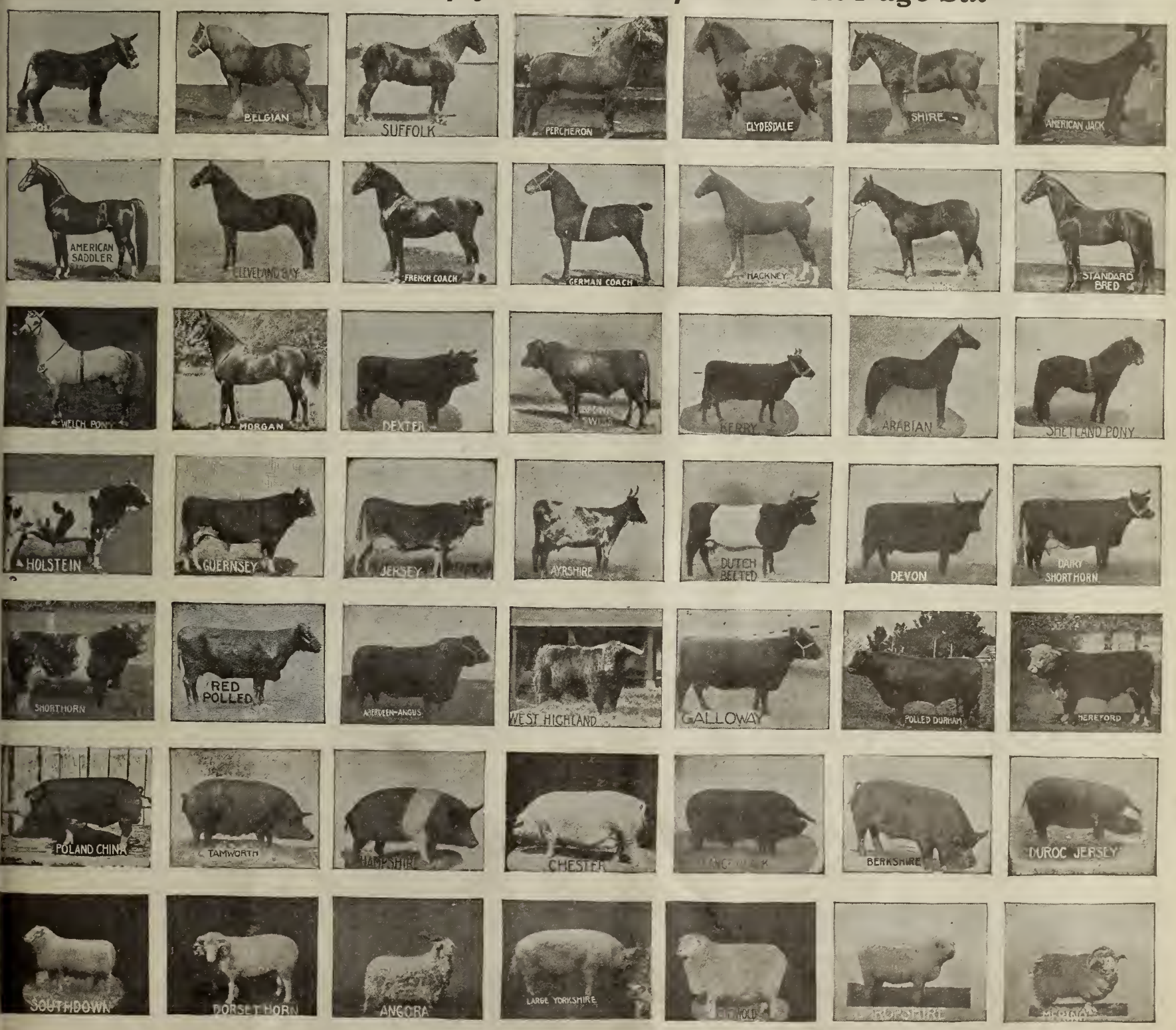
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Published Twice a Month. Subscription Price, $1.00 for Three Years, Payable in Advance.

Volume VII. *Kansas City, Missouri, August 20, 1914* *Number 15*

Send Us Your Reply To The Proposition On Page Six



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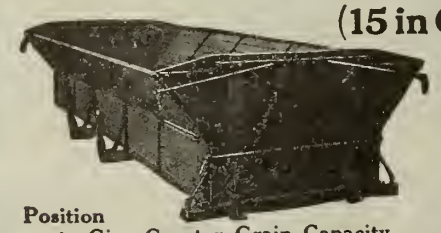


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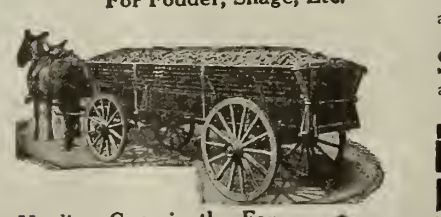
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THE AMERICAN BREEDER

With which is combined
THE STALLION AND JACK NEWS.

AUGUST 20, 1914.
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DISEASE GERMS.

There is probably no other influencing factor as important to human and other animal life as disease germs. Wonderful progress in determining the importance of this factor has been made within the last third of a century. Thirty-two years ago the germ causing tuberculosis was discovered. Only a few scientific men were, at the time, impressed with the significance of the discovery. This has been the case with many new discoveries. Dr. Robert Koch was the individual who brought this famous germ to light. He, himself, did not realize the importance of his work at that time. Then only a few men knew him; today his name is proclaimed the world over.

The results of that discovery is saving this country millions of dollars yearly, and the per cent of tubercular deaths has been reduced nearly half.

The best treatment in tubercular cases, as in all other cases of infection, is prevention. If an individual or animal does not become infected, no remedies will be necessary. If every average individual could listen to a lecture of two hours in length by Dr. A. T. Kinsley, the death rate among humans and animals would be wonderfully diminished. Of all the subjects being taught no other is so important, and of all the subjects presented to the American people it is among those considered least. A large per cent of the people do not believe there really is anything to "infection." This is not to be wondered at, as history teaches us that only a few generations back individuals were put to death as witches if they happened to show little red spots on their bodies, such as were caused by a comparatively harmless germ. Many of the scientific investigators have spent their lives in preparing subjects for future generations. Do we appreciate their efforts?

STALLION COLLECTION LAW.

Every man interested in horse breeding should not forget that a campaign is to be made this fall or winter in the different states which still lack a substantial lien law. This law should provide for a lien on the mare and colt for 18 months from the time of service, without the filing of any papers.

Two years ago a campaign of this kind was made, which resulted in several states passing satisfactory laws. If every breeder will get busy and do his part practically every state in the union can have this legislation. The first and most important thing to do is to get in touch with every other breeder possible; talk the matter over and have them working. A few men in each county can stimulate all the other breeders to activity. This is not a fight that interests merely one man, but practically every horse breeder is affected.

Too many stallion and jack owners are afraid that their mare owners will be offended if an attempt of this kind is made. These breeders have not realized the fact that the honest mare owners are paying all the expenses of maintaining stallions and jacks. If one-fourth of the colts are never settled for, the owners of the other three-fourths pay all the expenses. If this subject is properly presented to an intelligent, honest mare owner, he is not likely to be offended, as he can see where competition will regulate the service fee and make his part of the expenses a little cheaper. There are not many men who enjoy paying the other fellow's bill.

We should like for the breeders in the different states to send us copies of the law governing the collection of liens in that state. We will publish a number of the best ones in the near future, so that breeders can have an opportunity to decide on the one law which they think is the best. Then a large number of circulars can be printed and material sent out to other breeders. The first and most important thing in the advancement of this legislation is to get in touch with all the breeders in each county. It is to be hoped that every breeder will do his part and not leave all the work to the other fellow. At county fairs and other meetings will be good places to work on these individuals, but the best way is to call them over the telephone; make dates with them where a personal conversation can be had. Practically every breeder can get acquainted with all the other breeders in his county. The importance of this matter should stimulate every breeder to activity. We will be glad to print reports of what each is doing.

CASTRATION BY INJECTION.

Some months ago we made mention of the fact that it was possible to castrate animals by injection, by taking some of the material from the testicle of one animal and injecting it into the body of another animal of the same species. We have received a lot of correspondence asking for "full directions." It was not expected that any average breeder would be able to perform such operations. This should be left to those who have made a study of surgical operations.

But we were confronted from another angle. A lot of veterinarians asked for this information. When we made mention of this discovery we only wished to show the possibilities. Enough experiments have been carried on to prove that it can successfully be done. We may expect to see this method of castration practiced largely within the next few years, but at this time few, if any, know the best manner of performing the operation. There are a number of expert veterinarians working on this subject. When the best methods have been developed we will be glad to furnish this information to the public. In the meantime if there are any who doubt the possibilities of it they should make an examination of results at some of the human penal institutions.

SCRUB STALLIONS.

A peculiar condition exists in practically every section of the country where horses are bred. The owners of the best sires are frequently in hostile competition. Nor do they stop at fair competition in all cases. This short-sighted policy should be dropped. The contest is not between the owners of good sires but the principal fight should be made by the owners of good sires against the scrubs, which should be castrated. In practically every district there are a lot of stallions that are injurious to their community. Practically every colt sired by one of these scrubs is raised at a loss. The owners of good sires do not seem to understand that there are so many inferior animals throughout the country. Each of these gets a few mares, which makes an enormous total in practically every county.

If the owners of these good sires would get together and start a campaign for the elimination of the scrubs, great good would be the result, not only for themselves but for their customers. Some breeders think that this refers only to the thinly settled sections of this country, but this is not the case. In too many of the best horse breeding districts more than half of the mares are bred to inferior sires. This is a broad statement, but we can prove it. The intelligent manner in which to begin the castration of these stallions is to educate the owners of the mares. The very best way to start this education is to send in a large number of orders for the Mare Owner Editions. The plan is set forth in this issue. The names for the Mare Owner Editions should be sent to this office by the first of September.

BURGESS AND McMILLAN.

Several of our readers have asked why we do not like these firms. One has indicated that, in his opinion, we had it "in for them." This is not a personal matter; it is a proposition which involves the very life of any improved live stock industry. If any parties are allowed to deal in irregular pedigrees unmolested, what will become of the registry system. We would much rather have told about the good qualities of these men than to have exposed them, but the interest of the great American industries are too important to permit men to prosper through the use of irregular certificates.

These firms were among the wealthiest firms in the draft horse business. We did not start to show up some little man who was not able to defend himself, but we began with some of the biggest and most influential, and let the chips fall where they would. We feel that we have done only our duty in making exposures of these firms. We do not believe that it is right that these men be allowed to show their stock at state fairs which are supposed to be of an educational character, and in which they compete with honest exhibitors. We do not believe that the rising generation can be benefited by the example of these men in dealing in irregular pedigrees, and receiving honor and recognition at the hands of state institutions. If every breeder, taxpayer and exhibitor in the state

Ever Go To A Fair?

It is unnecessary to ask. Men interested in good live stock, go to fairs more than any other class, and that means you have some ideas about fairs which are worth printing. We want these ideas set forth in

Our Next Issue; The Fair Number.

The secretaries and managers of more big fairs and stock shows will study this issue, than ever have studied any like issue of any paper. They are expecting some straight tips from the men who show the live stock or who watch the live stock judges at their work, or who pay in the money at the gates, and American Breeder readers will not disappoint them. Think of some particular, practical things which the management could do to add to the educational value of you own State Fair. Tell about them just as the thoughts come to you. We are willing to "shape up" your letter for the printer, if you think it needs it, but the observation and ideas must come from you. That is the "dope" these fair managers and secretaries want to get. Criticise whatever you think ought to be corrected; this is a free country; but also mention any especially good features you have seen at any fair, so that others may benefit and the fair managers may know of your appreciation.

This is a big question. Twenty-five state fairs, which have furnished us figures, report a total of $12,750,000 as the value of their grounds and buildings alone. Which means, that as a taxpayer and fair patron of an average state in this respect, you are interested in a

State Fair Plant Worth $500,000.

The fair (lasting for one or two weeks out of a year) which is good enough to justify maintaining such a plant certainly has to be a "crackerjack." Every citizen and every fair officer should realize this and be always ready and alert with thoughts, suggestions and efforts which will help to make these enormous institutions for education, and entertainment, just as effective as they possibly can be.

But we did not start this for an editorial. It is an urgent request that every one who can help in the good work, sit down right now, and write us a letter for the "Fair Number." We know that you will write on at least one of the very points that ought to be brought out; we never yet have been disappointed when we called on our readers for ideas. Just mail your letter to our regular address, starting it in time to reach us before September 1.

where men who are crooked, try to exhibit, will do his duty, this matter will be adjusted satisfactorily to the honest men in the business.

READ THESE WHEAT FIGURES FOR A CHANGE.

In order to get an idea as to the margin of profit in the wheat business, inquiries were sent out by the Kansas Agricultural College to growers in all the principal wheat producing counties. Out of the replies received there were 80 which were complete enough for the purpose of investigation. These 80 replies represented 30 Kansas counties and their careful compilation showed an average cost of $11.34 per acre for the production of this year's crop of wheat. This average cost did not include any charge for taxes or for depreciation of land. The average land value given for the farms reporting was $80 per acre, and the reports showed a variety of methods used in the production of the crop. The investigators consider that these figures are fairly representative for the state. The fact that the average yield for Missouri and Kansas, among the winter wheat states, for example, has been about 14 bushels per acre for the past ten years does not indicate much chance for profit, one year with another. Fourteen bushel wheat has to bring 81 cents a bushel to pay the cost figure, and we doubt if the winter wheat has sold for an average of 80 cents during the past ten years.

It all simmers down to the proposition which the big experiment station at Hays, Kans., is trying to make plain; that no permanent agriculture (particularly in that section of small reserve wealth) can be built up without the use of live stock. Without live stock the land constantly deteriorates, and the figures show beyond a doubt that average methods and facilities make exclusive wheat growing a losing business in average years.

And when you are figuring on a crop, or a business, do not ever lose sight of that word "average."

BORAX FOR FLY PREVENTION.

The Department of Agriculture nas discovered that a small amount of ordinary borax sprinkled daily on manure, will effectually prevent the breeding of the typhoid and house fly. Applied to garbage, refuse, open toilets, damp floors and crevices in stables, cellars or markets, it will prevent fly eggs from hatching. Borax will not kill the adult fly nor prevent it from laying eggs, but its thorough use will prevent any further breeding.

As a result of experiments carried on at the Arlington Farm in Virginia and New Orleans, La., the investigators found that 0.62 of a pound of borax, or 0.75 of a pound of crude calcium borate would kill the maggots and prevent practically all of the flies ordinarily breeding in eight bushels of horse manure from developing. This was proved by placing manure in cages and comparing the results from piles treated with borax and from untreated piles. The borax, it was found, killed the fly eggs and maggots in the manure and prevented their growth into flies.

In the case of garbage cans or refuse piles, 2 ounces of borax, costing from five cents a pound upward, according to the quantity which is purchased, will effectually prevent flies from breeding.

COMMENT ON BELGIAN STALLION SHOW.

To the American Breeder: — In answer to N. P. Mayhew's letter in the issue of July 20, page 5, in regard to the Belgian Stallion Show awards, I think No. 3 will go wrong in his left hind leg. I would take No. 64 for my choice.—L. D. Carter, Canyon County, Ida.

Building Up a Stud

BY HENRY W. VAUGHAN, IOWA AGRICULTURAL COLLEGE.

We now come logically to the matter of selecting the individuals which are to compose the stud. First of all, they must be sound, and this is a matter to which many farmers pay too little attention. Buyers offer the best prices for sound stock, and the farmer has too frequently sold his young mares that were sound and has retained those with side bones, ring bones, spavins, curbs, etc., for breeding purposes. This is radically wrong and a very short-sighted policy. Soundness is of very vital importance in every type of horse and especially in animals used for breeding purposes.

The individuals should also be true representatives of the type to which they belong. Whether or not the brood mares should be pure-bred depends on the amount of capital available and on the type of horse selected. If possible it is preferable that they be pure-bred, registered mares. In breeding drafters for the market, some very profitable work has been done with good grade draft mares. In such cases, however, these mares have shown excellent draft type even though they were not eligible to registry. Pure-bred draft mares cost considerably more to buy, but have the very great advantage of having their foals eligible to registry and hence of greater market value. In breeding carriage, roadster and saddle horses, it is essential in most cases that registered mares be used.

Well developed feminine character and good disposition are fundamental qualities in a brood mare, as such mares are usually more regular breeders, better mothers and more easily handled and worked than are mares of masculine appearance or mean, vicious, or highly nervous disposition.

A sound, pure-bred stallion that is true to type and a good individual in every way is the only kind worthy of patronage. If there is no such horse in the community, it will pay to ship the mares a long distance to reach such a one. If possible it is always best to patronize a stallion that has proved himself a sure breeder and a getter of good foals. There is no greater folly than breeding to a horse simply because he stands at a low service fee; yet this is done in a vast number of instances every season.

There would not be the great number of unsound, mongrel, and inferior stallions standing for public service if there did not exist a demand for them on the part of mare owners. There can be only one explanation so far as the owner of the mare is concerned and that is the saving in the amount of service fee, but no more short-sighted practice can be followed, it having been demonstrated in almost every community that the added value of the foal from a high-class stallion, as compared with the foal by a cheap horse, repays the extra service fee many times over. It costs little more to raise a good foal than an inferior one, and the foal by the cheap stallion is not ordinarily a profit maker.

So many breeders have shown a lack of judgment in this matter, and horse stocks have deteriorated to such an extent in some states on account of the large number of mares bred to cheap horses, that stallion laws have been enacted debarring unsound stallions from public service and requiring that placards be posted on the stable door telling whether the stallion is a pure-bred, cross-bred grade, or mongrel. Every state needs a law of this kind modified to suit its needs.

Another evil in need of remedy is the too common practice of mixing the types of horses. Heavy mares are mated with trotting stallions in order to produce an animal for road use, or with no particular idea in the mind of the mare owner except to "get a colt." Light-weight, light-boned mares without any semblance of draft qualities are mated with draft stallions in the hope of getting a draft foal, or again simply to "get a colt."

The results of such breeding are to be seen on every hand in the country, and a visit to any large horse market reveals the fact that a large percentage of the animals offered for sale are of no particular type or market class, because they have a variegated ancestry, the result of indiscriminate crossing of heavy and light horses. The result is a lot of cheap horses adapted to no particular work, which net the producer a loss in most cases. Breeders must learn to stick to type. The experience of all successful horse breeders teaches no other lesson more forcibly than this.

In the minds of many people the words "pure-bred," "registered" and "imported" have a charm much greater than they deserve. For too often, glaring faults of individuality, or even serious unsoundness, are passed with light criticism because the animal in question is eligible to one or more of these fascinating names. It is a fact that many pure-bred horses are practically worthless for breeding purposes. If an animal is pure-bred and registered, its value is very greatly increased provided it is a good individual of useful type, but if the animal is decidedly faulty in conformation, or has serious unsoundness, its pedigree and registration number are of small account and the animal is of little or no value for breeding purposes.

Every successful breeder is a good feeder and caretaker, for no matter how excellent the ancestry of a foal may be, its inherited good qualities cannot reveal themselves unless the foal is provided with good quarters and plenty of the right feed with which to build up and grow. Feed and care are fully as important as parentage in producing good horses.

In conclusion, therefore, follow the intensive rather than the extensive plan of horse production; select the type to breed, after careful study of the situation; select a breed which truly belongs to that type; select sound individuals possessing a high degree of excellence; breed to a strictly high-class, pure-bred stallion, regardless of the amount of his service fee; if there is no such stallion in the neighborhood, ship the mares whatever distance is necessary to reach a high-class horse; patronize a tried and proven sire if possible; stick to a definite line of breeding—do not mix the type indiscriminately; raise a class of foals that merit plenty of good feed and care, and supply the same; be conservative in your judgment and appreciative of the fact that the breeding of horses is an enterprise which repays careful study of all departments of the business.—Henry W. Vaughan.

MANY SATISFACTORY INQUIRIES

To the American Breeder:—Please discontinue our ad in the American Breeder, as we have many satisfactory inquiries already. Thanking you for the way you have used us, we remain, Fruin Bros., Iroquois County, Ill.

A STRONG BOOST FOR BETTER METHODS.

To the American Breeder:—Permit me to say to my friends and fellow horsemen, through the columns of your valuable paper, that the capsule system is the most perfect and successful way of breeding, and the colts are just as good and strong, and well developed, and healthy, and make just as well developed horses and mules, as produced the natural way. Please remember nature's law is "Like Begets Like," and I believe every colt that is cared for properly will grow to a likeness of their parents. My parents, both my father's and mother's people for several generations in Kentucky, were enthusiastic lovers of fine horses, and I believe I inherited a love for horses, for I love a high class horse just as I believe I would a brother. I commenced breeding and handling horses when I was quite young, as my father died when I was but six years old, and I chose the profession of "horseman," of which I am justly proud. For I have not only bred, developed, shown and sold fine horses and jacks in this country, but in other countries as well. I have sat behind great Kentucky trotters as they spurned the turf with steps that set the wheels to a hum of rhythmetric music, more pleasing to my ear when accompanied by a great shout of victory. I have sat upon the back of the high-stepping beauties whose perfection of form and grace of action moved me to admiration and wonder. I have watched the wild impatience of the intelligent racer as he pranced and walked upon the winds from his stall to the track. I have looked with admiration upon the noble draft horse with his great developments of muscular power, as he threw his great weight into the collar; the horse that sets the machinery in motion to harvest the bread for the nations. For there is not a line about a high class draft horse that is not a line of beauty, and I have patted him on the head and looked into his intelligent eyes when he was wet with perspiration of honest toil on my farm, and said, "Most useful animal of God's creation, with you I can accomplish wonders," but without you I could do nothing.

Now friends and fellow horsemen, let us rejoice with exceeding great joy that there has been a discovery made, namely, the capsule system, and if scientifically handled will increase in numbers the better of these most useful animals. I have got mares with foal by the use of capsules that had never bred and for several years had been given up as barren. I can call into my memory several mares that had not produced colts from three to nine years, although they had persistently bred them during each entire season to horses and jacks of every description and kind of stock. But I must say before I graduated from the Graham Scientific Breeding School I was very much discouraged with artificial breeding. During the season of 1907 at Mexico, Mo., I used a breeders' bag and a long rubber bulb impregnator, with the great show saddle stallion Forest King 1462 (A. S. H. R.) and Rex Carter (A. S. H. R.), a full brother to the world's champion saddle stallion, Rex McDonald, and I had very little success, and among the several hundreds of stallions that I have owned and handled I consider them both the surest foal getters I ever saw. The school put me right. I am confident 500 mares can be bred to one stallion with a much larger per cent of foals than the old way.—A. F. Simpson, Boone County, Mo.

Anthrax Prevails in Texas

A Fatal Disease Affecting All Kinds of Live Stock and Humans.

Anthrax or charbon has prevailed in the eastern coast section of Texas for many years. The disease was probably introduced from France into Louisiana in the early settlement of that country. Aside from the permanently infected coast section, an occasional outbreak of anthrax has occurred in various parts of the state. A few such outbreaks having occurred in the western part of the state in the ranch section. Recently the disease seemingly has assumed an epizootic form, cases having occurred here and there throughout various parts of the country from the Oklahoma line to the gulf and from the middle western part of the state to the eastern line. The appearance of the disease in this



BACILLUS ANTHRACIS ANTHRAX SHOWING RODS WITHOUT SPORES.

wide area created considerable excitement in the stock owners and they have resorted to various means of treatment and cure of the disease. Some methods of which have increased the tendency to spread the disease and make it more destructive than the original outbreak.

Anthrax is a specific germ disease caused by the bacillus anthracis. This is a rod-shaped organism so small that it gains entrance to the animal body without difficulty. When the anthrax bacillus is placed under unfavorable conditions, that are sufficiently intensive to destroy the germ, it forms spores. These spores are probably the most resistant of any form of life and for this reason it is impossible to disinfect a premise of the anthrax spores after it has once been infected, and from this viewpoint this extensive appearance of anthrax in any community is serious, because anthrax will always prevail more or less extensively in an area where it has once made its appearance.

The germs live in the soil indefinitely. They are occasionally thrown up to the surface of the soil by earthworms, ants, squirrels, etc., and are deposited on grass and other vegetation where the animals can readily consume it and thus become infected. Another much more common method of transmission of the disease, particularly during an outbreak, is by the agency of flies. The flies extracting blood from an infected animal may and frequently do obtain the anthrax bacilli which they later are capable of introducing into healthy and susceptible animals and those produce infection. The disease has apparently extended in all directions, but more particularly in the direction of the prevailing winds, which means that the transmission of the disease has primarily been affected through the agency of flies as flies naturally drift with the wind.

This disease assumes various forms, two principal forms are the so-called carbuncular and intestinal type. The carbuncular anthrax is typified by a doughy-like swelling which occurs on the neck, shoulder, flank or any other part of the body. This swelling is at first sensitive but later becomes insensitive because of the loss of life of the affected skin or the dense infiltration with serum that later coagulates. If an incision be made into this swelling, there escapes a yellowish serous fluid that may or may not be coagulated and may contain varying quantities of blood. The carbuncular type of anthrax may have a relatively short duration, the animal affected dying within ten to twelve hours or even less; however, as a rule, those animals affected with the carbuncular form of anthrax live for two, three and four days or even longer, and about 50 per cent of them ultimately recover.

Within a few hours of the appearance of the carbuncular type of anthrax, there is usually a marked rise of temperature which lasts varying lengths of time, depending upon the resistance in the animal. While the temperature is high the animal refuses to eat, but as soon as the temperature becomes normal or near normal there is a return of appetite and the animal appears to be healthy, excepting for the swellings. The intestinal form of anthrax is invariably acute and destructive, the animals living only a very short time and frequently there is no evidence of the disease until the animal falls to the ground and dies within a very few moments.

This disease affects cattle, horses, mules, sheep, hogs, dogs, rabbits, man and other animals. Because of the various animals that are affected and the fatality of this disease, one can readily understand the seriousness of the extensive outbreak of it. From creditable sources it seems that Texas has lost thousands of head of stock, particularly cattle, horses and mules, although some humans have also become affected and according to the reports two men have died as a result



BACILLUS ANTHRACIS (ANTHRAX GERM) STAINED MOUNT OF BLOOD SHOWING THE CAPSULE OF THE BACILLI (PRIZE).

of infection. The infection in man is usually obtained while skinning animals which died of this disease.

The control of anthrax in Texas is going to be difficult because of the prevalence of flies in that particular section. All affected animals should be isolated, and if possible in a screened inclosure, to prevent the possibility of transmission of germs from this animal to others by the means of flies. All dead animals should be cremated entirely, bones, hoofs and all. If the disease appears in a prairie country, the carcasses may be effectually disposed of by burying deeply in the soil and disintegrate the body with the aid of quick lime.

When an animal dies of anthrax there is usually a bloody discharge from all of the natural openings. This discharge contains the anthrax germs and should be destroyed. Further discharge from the openings may be prevented by plugging them with cotton saturated with some disinfected solution. A further preventive measure consists of vaccination, with a reliable vaccine (it would be advisable for stockmen to communicate with their Live Stock Commission in Fort Worth, to obtain data as to the kind of vaccine to use, etc.) If possible, this vaccination should be done by one skilled in the application of vaccines, particularly a veterinarian. It must be understood that immunity cannot be obtained by vaccination within a period of 15 to 20 days, and, therefore, losses will continue for some little time after the vaccine has actually been introduced. The principal consideration in the section where this disease has been identified is to prepare for the future. Regulations should be instituted governing transportation of animals from these areas in order that the live stock industry in general may be protected. Means should be instituted diminishing the number of flies and thereby diminishing the possibility of transmission of infection.

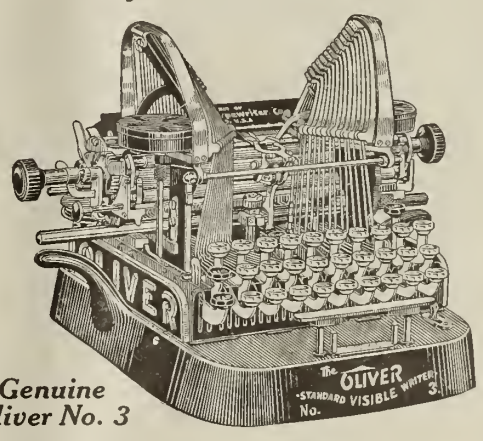
For future protection, a thorough, reliable vaccine should be used not later than the first of April each year, vaccinating only those animals on premises where this disease has been identified. If each individual will cooperate with the Sanitary Commission, it will be only a short time until some means are evolved that will prevent further spread of this disease and they will also protect, to the greatest degree, the animal industry in the infected areas.

OWNER OF FAMOUS HARNESS HORSES KILLED.

John C. Crabtree, the owner of the world's record pacing team, was killed in the railroad yards of his home city, Taylorville, Ill., early this month. Mr. Crabtree had just returned from the Indianapolis race meet, and was struck by the loose door of a passing box car. At his burial, the funeral carriage was drawn by the famous team of the deceased, Lady Maud C. and Hedgewood Boy.

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Questions and Answers

Questions from subscribers, on any phase of live stock production—breeding, feeding or the treatment of injury or disease—will be answered under this heading free of charge. No questions will be answered by mail, but we make the service through the American Breeder, giving inquirers the help of the best authorities in the country, free, because the problems of one reader are likely to be of interest to all. As knowledge of location is sometimes necessary to a proper understanding of the answer, we give the state from which the inquiry comes, but names and postoffices are withheld, making it safe for subscribers to ask questions of a confidential nature whenever they wish.

Do not make your question a part of a letter; write it on a separate sheet of paper. Send in your questions every time something comes up you need to know; we are glad to have them.

Sign Your Name and Address to all Questions.

1228—AMERICAN PERCHERON ASSOCIATION—I would like some information about the American Percheron Association. Is it a pure bred or a grade association? I note the agricultural commissioner of Ohio does not recognize it only as a grade association.—Ohio Subscriber.

REPLY—We do not advise our readers to patronize this association or purchase an animal registered in it.

1229—CYSTIC OVARY—We have a mare with cystic ovaries and does not breed. I have tried to rupture the cystic but have been unable to; also our local veterinarian has tried, but the tissues seem to be so tough they won't break. What would you advise in a case of this kind?—Illinois Subscriber.

REPLY—If the cyst cannot be ruptured with reasonable pressure you will have to leave it alone unless it affects the nature and disposition of the animal, in which case it may be removed by a competent veterinary surgeon.

1230—ENLARGEMENT ON SHEATH—I have a Belgian stallion that has a bunch on the left side of his sheath or on the glands about the size of an egg. The whole side of sheath is swollen; the other side is normal. When he stands it swells quite a good deal. Would it take it away by blistering it or would it be best to have the bunch cut off? Our veterinarian says it won't materially hurt him, but I think it is getting worse.—North Dakota Subscriber.

REPLY—Enlargements in this location are very difficult to fully recover by any method. These parts swell very easily from any irritation and any enlargement resulting from the same is very slow to absorb. We believe you will make the most progress by using rather mild applications and gentle hand rubbing and kneading rather than the severe agents like blisters. Gently work the parts with the hands for as much as five minutes and then apply the following with a swab: Tincture of iodine, eight ounces; alcohol, eight ounces; mix together and apply twice a day. You must be content to wait some time for improvement to take place.

1231—MARE OWNER EDITIONS—Will the papers you send to the 110 mare owners I sent in last week, be the same kind I get on my subscription, or will they be different? If they are as good as I get I think they'll do the work.—Kansas Subscriber.

REPLY—The Mare Owner Editions are simply certain regular issues of the American Breeder which we put out at a favorable time for getting the attention of the mare owners, and in which we publish special material of interest to them. This season we are starting the editions in the fall, so as to cover the care of mares and colts during a very important time, and at the same time keep the paper before them when they have most time to read. The present offer closes soon (see large notice elsewhere). Thousands of farmers who started as mare owner readers, are now regular subscribers.

1232—PECULIAR DISEASE— There is a disease among the horses here, mostly on young stock. I think it is a swelling on the breast about 12 inches in diameter; very hard, no soft spots to be found; seems to be partly in the flesh; very sore but is a little loose on the breast; generally found on the left side. They get stiff in front; no cough; fall off in flesh considerably; this lump breaks in two or three weeks. An old fellow pronounces it colt distemper; said they used to have it on the trail. It is scattered over the country, just one or two in a bunch. A veterinarian says it is a kind of fly that strings them.—Oklahoma Subscriber.

REPLY—Your description does not enable us to reach a positive diagnosis as to the character of the ailment, but it is very likely induced by the bite or sting of some insect or may be occasioned by local infection.

1233—BREEDING QUESTION—There is a jack here handy to me for breeding my jennets. He is 15½ hands high; 9¾ inch bone; 35 inch ears and will serve a mare in six feet of a jennet and is the best foal getter I ever saw. Has got the best hips I ever saw on a jack; in fact, is good all over, but he is not exactly black. He is a dark color with a small strip on shoulder. The most of his mules are bay. There are a number of good jacks around here, black with white points, but not one of them can show as good colts as this striped jack. In fact, the owner never lost a show with his colts. He is the surest jack I ever saw. Got 84 colts this year with natural service. What must I do—turn him down because of the stripe or cling to him?—Missouri Subscriber.

REPLY—As a breeder your first interest should be in the good qualities of the offspring and we can see no good reason for turning down a jack that is himself a good individual and has shown himself a good producer, because of being a little off in color. The merits of an animal should be given more weight than the mere color of the hide. There was a time when the color craze got the best of men's judgment in a certain breed of cattle and it was carried to such an extreme that it came very near ruining that breed. Only a few years ago Poland China hogs had to be nearly black in color, and along with it was a sentiment of refinement that gradually carried this valuable breed to an unpopular place. The reaction that followed has restored this breed of swine to their former popular position but it was done by ignoring color crazes and refinement. Stick to the animal that produces the right kind.

1234—CHRONIC SCRATCHES—I have a Morgan stallion that has a most persistent case of scratches. I have tried many remedies recommended. None seem to do any good. Should appreciate the benefit of your advice regarding what is the best thing to do for scratches on a ten-year-old stallion.—New York Subscriber.

REPLY—A chronic case of this kind is very difficult to treat at the best and inasmuch as you have some of the best veterinary talent in the world in your city, we would suggest that you take the matter up personally with some one of them. To begin with the stabling needs careful investigation along with the methods employed in keeping the parts clean. As a rule, the less water and soaps used on the parts the better. The matter of food and exercise also needs attention, as well as the possible need of internal medication. As to what will give the best results locally is largely a matter of trial. What will cause one case to heal kindly will often prove only an irritant to another. As stated, we believe the treatment of your case will be far more satisfactory to you if you place the animal in charge of a competent and careful veterinarian.

1235—AFTERBIRTH—One of my neighbors had a mare in foal by my horse. The colt came and was all right but there was a growth came with the afterbirth about the size of a man's head and there were little bloody looking chunks of flesh about the size of the end of your thumb all over this growth, which seemed to be attached to the rump bone back of the kidneys.—Colorado Subscriber.

REPLY—This is probably a part of the afterbirth.

1236—BREEDERS' BAGS—I have a stallion which withdraws the semen when using a breeder's bag. Please describe a breeder's bag and how used.—Nebraska Subscriber.

REPLY—Quit the use of the breeders' bags and you stallion may recover. Breeders' bags have ruined many good stallions. Yours may be one of them.

1237—ECZEMA—Please tell me what kind of a sickness my stallion had. He has a four-year-old grade Percheron. On July 1st I noticed he began to swell a little around his ankles and the hair began to loosen and in a few days he got to itching all over the body and in two weeks the hair all came off and his body was scabby all over. The scabs would loosen and come off and the hide was smooth underneath; the next day it would be all over scabs again. A few days before he died there was a kind of greasy stuff come through the pores and his legs and testicles were swollen terribly; there was some whitish matter dripping from his penis. He had some fever and was breathing hard in the forepart of his sickness, but was breathing natural the last week. I did all I could to save him, but I guess I did not have the right kind of medicine. I washed him every day with a germ killer according to directions and greased him with lard and a little turpentine mixed in it. His bowels moved freely all the time and he ate well up to the last two days, and he was sick nearly a month. I tried hard to get a veterinarian to come to see him, but as he was busy in other parts of the country, 50 or 60 miles from here, could not get him. The horse was out on green grass for about three weeks before he took sick, but was stabled at night. Please let me know what you think it was. Nobody here ever saw a case like it. Do you think the horse could have been saved by having the right kind of medicine?—Wyoming Subscriber.

REPLY—It is quite likely that this animal started with a case of eczema but this disease rarely causes death. We were wondering if some of the agents you used were really not responsible for his death, inasmuch as the condition of the skin made it very favorable for absorption. Not knowing just what agents were used and the strength they were used, we are not prepared to fully answer your question.

(Continued on page 15.)

BREEDERS, WHAT IS YOUR ANSWER?

Proposition Closes September 1.

If ten practical men in your line of business came up to you, one after another, and advised that you spend $10 in a certain way, to make your business better, wouldn't you say to yourself, "I'll try out that proposition myself."

If you had the signed statements of these men, that they are doing the very thing they advise you to do, and find it "the best money they ever spent," you would be ready to act, wouldn't you?

The time is here, right now, for you to act. In the American Breeder of June 5 you read the statements of, not ten, but fifty men who send our Mare Owner Editions to their customers. In fifty ways they tell how this plan is proving a big benefit to them. Almost every one of them is back again with his order, taking advantage of the better offer and early start we are giving you with your customers' mares.

Many a colt is lost from lack of attention during the changing weather and changing feeds of the fall season. Better care will save these colts and bring the mares through in better shape for spring. You get your customers' attention throughout their best reading season, and you are giving them absolutely the most and best help in the care of mares and colts it has ever been possible to buy anywhere at any price.

What does it cost? Ten dollars will send the regular issues of the American Breeder, containing the special information which your patrons want, to 100 of these patrons, for five months. You can send the paper in this way to ten men for only $1.00, and after that the rate is 10 cents each for each additional man. We notify every one of them that you have ordered the paper sent to him, and paid for it, and that it will stop when the time is out. These men appreciate your attention to their interests. It pays you big. Thousands of them have become regular subscribers (otherwise we could not afford to make such an offer), and are helping the men who started them to make the breeding business of their sections better than it ever was before.

It is time right now to act. Sit down and make out the list of mare owners—all who need the help and education, all who will appreciate the courtesy, all you want to get in touch with in a way they cannot forget. You'd gladly hand every one a ten-cent cigar. In thirty minutes it is gone and forgotten. For five months the American Breeder will keep you in their minds as one who has done them a good turn, and stands ready to co-operate with them at all times.

Send in your list—the offer closes September 1. But we do not want to be arbitrary about it; if sickness or urgent work make you two or three days late. Get your list in anyhow; you are building up your own business, and we are helping you in a way that counts.

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WHAT "DRY FARMING" REALLY IS.

Dry farming as advocated for the Great Plains consists not in particular methods of tillage but in combining in the best manner possible well adapted crops and making a definite organization for the farm. This was the statement of Professor E. C. Chilcott, agriculturist in charge of the dry land operations for the United States Department of Agriculture who spoke at the meeting of the Great Plains Co-operative Experimental Association, held at Hays, Kas.

Mr. Chilcott declared that dry farming was a practical impossibility without live stock and referred to the silo as one of the most important features of this type of agriculture.

THE FAMILY INCOME.

What is the family income? Are you accustomed to estimating it in terms of wages, salary, or the profits of business only? Or, do you think of it as one of these, increased by many other things which a family has to use and to enjoy, and which are chiefly the product of the labor and skilled management of the home-maker? The latter is the accepted economic view. There is a genuine money value to be placed upon the home-maker's care for a family; upon the increase in value of money wisely expended over money unwisely spent.

There is an increase in value—a genuine earning—when a dirty, disorderly house is made clean and put in order, when raw food materials are made into well-cooked and attractive meals, when garments out of repair are repaired, or when soiled linen is made clean. From the economic standpoint a family is an enterprise of two departments, each contributing its share toward the family income. The head of the family is the wage-earner. But—the home-making woman is also an earner and the business manager of the housekeeping department. Wage-earner and home-maker together produce the family income, together support the family.—Josephine T. Berry, Home Economics, University Farm, St. Paul.

Live Stock, Hay and Grain Market Review

An almost unprecedented condition will appear in the horse and mule market, the result of the European war. In all former wars, demand for equines has been increased materially, but it now appears that demand will contract instead. Fall trade usually sees an increasing demand for mules to go south, but with the cotton trade practically suspended and planters unable to put up this year's crop as collateral it is quite evident that they will not buy many horses or mules if present conditions continue. Weather conditions in the entire cotton belt have improved materially under general showers in the past two weeks, and if growers could get money advanced on their crop, trade in horses and mules would not be interrupted.

One other probable effect of the war will be to put the United States at the head of the draft horse world. She already has the best blood of Europe, and is increasing her position by increased breeding. On the other hand, dispatches state that practically all the horses both in Belgium and France, have been taken for war service. Slaughter of horses is always great, and if the war is of any duration, the entire equine population of the three breeding countries of Europe will be entirely depleted. Europe will be slow to get back in the breeding game, as she will be prostrated financially.

The general mid-August demand is reported for horses and mules, but receipts continue light and nothing like real fall action has started as yet. No special class is wanted and shipments in any direction are mixed loads. Some construction mules have gone west, and a few loads of heavy drafters east. Dealers say there has been a decline of $25 to $40 a head in prices, though the proximity of the fall trade has made asking prices higher. Country shippers say that in many localities in Missouri and Illinois more horses are offered as the weather has been unusually dry. From the Missouri river west few horses are offered for sale, as crop conditions are good.

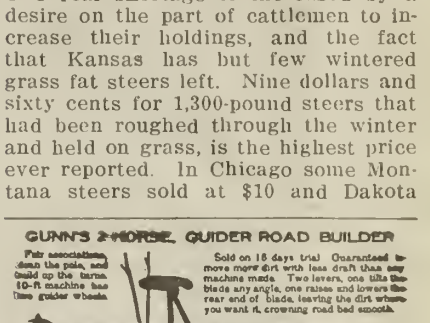
In range sales held in the past two weeks through the Northwest, satisfactory prices were reported.

Prevailing prices for serviceably sound horses and mules, 4 to 7 years old, are as follows:

Horses—	
Drafters, 1700-pound extra quality	$200@225
Drafters, good to choice	150@195
Drafters, fair to good	125@150
Chunks, good	110@145
Chunks, fair	70@110
Southerners, good to choice	85@115
Southerners	40 up
Mules—	
13½ to 14½ hands	$ 80@100
14½ to 15½ hands	100@125
15½ to 16 hands	120@165
16½ or better	170@215

Cattle at Record August Prices.

The first few days this month the cattle market was unsettled and sharply lower, owing to the unsettled financial condition that grew out of the first war spasm in Europe. As the week progressed, however, receipts grew lighter and killers were soon holding urgent orders with practically no cattle offered. Consequently, prices began to advance, and in the past week were in the highest position ever recorded in August. In Kansas City, $10.25 was paid for prime fat steers and in Chicago, $10.60. Wintered Western steers sold as high as $960 and steers from below the quarantine line brought $8.60. Only in one previous August has as high as $10 been paid, and August prices usually range from $7 to $8. The direct cause of the advance in prices is the shortage in the supply. Corn fat beeves are far short for this season of the year, and owing to the good pasturage in most of the range area, hardly any grass fat cattle are moving. The real shortage is increased by a desire on the part of cattlemen to increase their holdings, and the fact that Kansas has but few wintered grass fat steers left. Nine dollars and sixty cents for 1,300-pound steers that had been roughed through the winter and held on grass, is the highest price ever reported. In Chicago some Montana steers sold at $10 and Dakota



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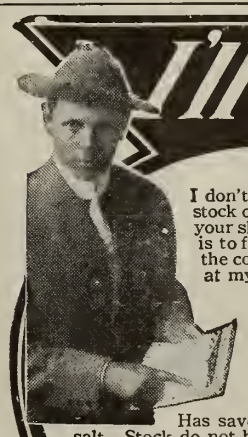
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Tell me how many head of stock you have, and I'll promptly ship you the **Sal-Vet** you need. You simply pay the freight on arrival—feed it as directed, and at the end of 60 days report results. If **Sal-Vet** has not done all I claim, I'll cancel the charge—you won't owe me a penny. Address,

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Ship me enough SAL-VET to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days and at that time pay for it if it does what you claim. If it does not you are to cancel the charge.

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Shipping Sta.....

No. of Sheep .....*Hogs*.....*Cattle*.....*Horses*.....

steers at $10.25. Most of the Kansas City cattle at $10 and better were Missouri fed Texas steers. A large number of ordinary steers from below the quarantine line brought only $5.50 to $6, but the bulk of the Southern steers sold at $7 to $7.75, and fed-grades at $8 and better. Receipts of Western cattle are expected to be more liberal from now, but native fed steers will be extremely scarce.

Quotations from the various grades of killing steers are as follows:

Price corn fat steers	$10.00@10.25
Good to choice steers	9.00@ 9.95
Fair to good steers	8.50@ 9.00
Common to fair steers	7.75@ 8.40
Meal fed, choice	9.00@ 9.75
Meal fed, common to fair	8.50@ 9.00
Quarantine steers, fed	8.25@ 8.75
Quarantine steers, grass fat	5.75@ 8.00

Big Demand for Canners.

Thin cows and some parts of bulls that make up the source of the canned meat supply were in urgent demand. That trade was stimulated by an order of 2,000,000 pounds of canned meats from the French government and the fact that canned meats in the past two years have been far below normal supply. Prices for canner cows, bulls and cutter cows rose 25 to 50 cents to new August level. The better class of cows and good heifers felt the appreciation in the prices of fat steers. Prime heifers sold at $9.40 to $9.65, mixed yearlings up to $9.75, and yearling steers $10. Veal calves were up 25 cents, top $10.50. Demand in all lines was active.

The following quotations are for the various grades of butcher cattle:

Cows—	
Choice	$7.00@7.75
Good to choice	6.50@7.00
Fair to good	5.75@6.40
Common to fair	5.00@5.75
Canners	4.25@5.00
Heifers—	
Choice	$9.00@ 9.65
Good to choice	8.25@ 9.00
Plain to fair	7.50@ 8.25
Common	6.00@ 7.40
Veal calves	7.00@10.50
Bulls	5.00@ 7.25

Stock and Feeding Cattle Needed.

At the present rate of marketing cattle receipts of stockers and feeders this month will be 50 per cent short of the same month last year. Quality, too, is unusually plain. The big producing states are finding a home market for all the good cattle they care to sell, and the entire calf crop of Texas is under contract for fall delivery, at $28 to $32.50 a head. Such cattle as are offered at the principal markets sell readily, and the supply will increase towards fall. However, many Texas cattle that usually come thin will be fat this year. Prices are uncomfortably high, but the incentive is that high prices for fat cattle will continue.

The following quotations are for the various grades of stock and feeding cattle:

Selected feeders	$ 8.00@ 8.40
Good to choice feeders	7.50@ 8.00
Fair to good feeders	7.00@ 7.45
Plain to fair feeders	6.65@ 7.00
Selected stockers	7.75@ 8.25
Good to choice stockers	7.40@ 7.70
Plain to fair stockers	7.00@ 7.35
Stock calves	7.00@ 8.25
Stock cows	5.25@ 6.25
Stock heifers	5.50@ 7.00
Milch cows	60.00@110.00

Sharp Fluctuations in Hogs.

In the past two weeks hog prices advanced $1.60 to $1.75, declined 60 cents and then regained all but 20 cents of the loss. The price movement in the past fourteen days was more extreme than it had been in the entire seven months previously, and in the short period both the highest and lowest points of the year were touched. In the first week in August, hogs were selling at $8 and under, and on August 11 the top price in Kansas City was $9.75, and in Chicago, $10.20, both new high record prices for the eighth month in the year. The market now seems fairly firm with quotations at $9.25 to $9.60. When prices swung down, countrymen shut off the run and in one week the five Western markets received less than 130,000, no more than a normal weekly supply in Chicago, and the smallest supply received at Western markets in many years past.

The following quotations are for hogs:

Choice, 250@300 lbs	$9.20@9.40
Choice, 200@245 lbs	9.10@9.40
Medium weight	9.25@9.45
Light weight	9.00@9.35
Common to fair	8.00@9.00
Stags	6.50@9.00
Boars	5.00@8.00

The following table shows prices for hogs in Kansas City in the past two weeks:

		Preceding Week
Monday	$9.10@9.75	$8.00@8.50
Tuesday	9.00@9.65	7.80@8.25
Wednesday	8.90@9.37½	7.80@8.20
Thursday	9.00@9.37½	8.00@8.35
Friday	9.20@9.55	8.25@8.75
Saturday	9.10@9.40	8.40@8.90

Sheep Make August Records.

Sheep have been in active demand and they, as well as cattle and hogs, reached new high record prices. Lambs are selling around $8.50, yearlings $6.50 to $7, wethers $5.50 to $6, and ewes $5 to $5.75. Continued light receipts cause the high prices. Practically no feeding lambs are coming, and there are a large number of orders awaiting supplies. Last year at this time about half the current supply was going back to the country.

Grain Trade Still Sensational.

Grain prices continue to fluctuate unevenly, but the general market appears less unsettled now than ten days ago. Comparatively little wheat is moving, and the whole situation is awaiting the opening of the export trade to break forth with renewed vigor. Corn prices have ruled higher, as the recent dry weather has curtailed the crop to a material extent. Rains have fallen recently in practically the entire grain area except North Missouri and Southern Iowa. Most of the corn belt needs more moisture. Oats and other feeds are higher.

Wheat—	
No. 2 hard	.83 @90
No. 3 hard	.79 @90
No. 2 red	.83 @84
No. 3 red	.80 @83
Corn—	
No. 2 white	.81 @82
No. 3 white	.80 @81
No. 2 mixed	.80 @82
No. 3 mixed	.79 @80
Oats—	
No. 2 white	.39½ @40
No. 2 mixed	.38 @39
Rye	.72
Chop	1.55
Bran	1.12
Barley	49@52
Shorts	1.30@1.40

Hay in Active Demand.

About 800 car loads of hay are moving weekly and being sold readily. Prices are holding firm, notwithstanding the large supply. Dealers report the outlet to all sections.

Quotations are as follows: Alfalfa, new, choice, $14@14.50; No. 1, 13@14; standard, $12@12.50; No. 2, $11@11.50; No. 3, $9@10.50; prairie choice, new, $10.50@11; No. 1, $9.50@10; No. 2, $8@9; No. 3, $5@7.50; timothy, choice, $14.50@15; No. 1, $13@14; No. 2, $11@12.50; No. 3, $7.50@10.50; clover mixed, choice, $13.50@14.; No. 1, $12@13; clover, choice, $10@11.50; No. 1, $8.50@9.50; straw, $4.50; packing hay, $5.

WEIGHT OF BARB WIRE SPOOLS.

To the American Breeder:—Barbed wire is placed on the market either in catch weights or 80-rod spools. Catch weight spools weigh from 85 pounds to 125 pounds, the average being about 95 pounds. These weights are net, and are painted on the wooden frame or spool on which the wire is wound. In calculating the amount of wire required to fence a piece of ground, it is usual to assume the wire weighs one pound per rod. This is only approximate, but serves to give an idea of the number of spools necessary.

In the 80-rod spools, the mills guarantee there are 80 rods of wire.—L. D. Crain, Colorado Agricultural College.

A Department For Women

PROVIDE SHADE FOR POULTRY.

To the American Breeder:—Failure to provide shade for poultry during the summer months not only results in a large number of deaths, but the flocks are less productive. The importance of summer shade cannot be overestimated. Poultry of all kinds require shade. Ducks and geese very quickly succumb if they are unable to get protection from the sun's rays. It is easy to provide plenty of shade. The Missouri College of Agriculture recommends the following ways of furnishing shade for poultry: Portable houses can be set up on blocks so that the birds may run underneath; orchards, sunflower patches, corn fields, etc., can be so arranged that the young stock or mature hens may run in them. Corn fields make excellent summer range for young stock. They furnish plenty of shade and other conditions for rapid economical growth are ideal. A little planning on the part of the farmer will make poultry keeping more profitable. By providing shade the losses are reduced, the flock is more productive, and the young stock will make more economical growth.—H. L. Kempster, Missouri College of Agriculture.

ANYBODY CAN CANDLE EGGS.

To enable farmers and housewives to test eggs before a candle and tell accurately their condition before they are opened, the Department of Agriculture has just published a colored egg-candling chart. To give a true picture of the eggs, twelve impressions were necessary to produce this lithographed chart.

This chart shows the eggs in their natural size as they appear before a candle, and also as they look when open in a glass saucer. The pictures include an absolutely fresh egg, slightly stale eggs, decidely stale eggs, eggs with yolks sticking to the shell, eggs where the chicken has developed so far that blood has been formed, moldy eggs, addled eggs, and eggs with a green white.

Comparatively few housewives are aware that a green color in the white of eggs is due to the presence of billions and billions of a certain species of bacteria that make a green coloring matter. Eggs with this greenish tint, even though the yolks seem to be perfect, are not fit for food.

As long as the Department's supply lasts, these charts will be furnished free upon application to the Editor and Chief, Division of Publications, Washington, D. C.

EVIDENCE THAT IT DOES SOMETHING.

"The test of the value of prohibition," said John S. Dawson, attorney general, recently, "is the net result for Kansas in thirty years. Almost a third of the entire population is enrolled in school. Illiteracy has been reduced from 49 per cent to less than 2 per cent, and that trifling amount is entirely among the foreign element.

"With 105 counties in the state, 87 of them have no insane; 54 have no feeble-minded; 96 have no inebriates, and the few we do have come from the cities which defied the law to the very last. Thirty-eight county poor farms have no inmates. There is only one pauper to every 3,000 population. In July, 1911, fifty-three county jails were empty, sixty-five counties had no prisoners serving sentences. Some counties have not called a jury to try a criminal case in ten years, and a grand jury is so uncommon that half of our people wouldn't know what it is. In my home county, in western Kansas, there has been only one grand jury, and that was twenty-five years ago."—Kansas Industrialist.

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COTTONSEED OIL A FOOD ARTICLE.

According to a recent monograph by Erwin W. Thompson, Commercial Agent of the Department of Commerce, European nations are finding out very rapidly how to make food of our cottonseed oil. France, Italy and other southern nations have always considered oil an essential article of diet. Olive oil is their native supply, but they have now learned the economy of exporting their olive oil at high prices and importing in its place American cottonseed oil, which is lower in price but not lower in nutritive value.

By the recently discovered process of solidifying liquid oils, cottonseed oil is now beginning to compete with hard cocoanut oil, which sells at even higher prices than olive oil, and is becoming very popular as an ingredient of artificial butter.

Cottonseed oil has exactly ten times the nutritive value of beefsteak and costs only half as much. As the United States makes each year over three million barrels of refined cottonseed oil, it is worth while to study the various methods of making it acceptable as food.

"CLEAN, SAFE, MILK."

The essential factors in the production of clean, safe milk may be outlined as follows:

Clean, healthy cows kept in clean, light, well-ventilated stables.

Stables so constructed as to be easily cleaned.

A Litter of Scotch Collie Puppies

For sale; color sable and white. They will be sold at bargain prices, as I want to close them out. Also the mother of the pups for sale. They are from registered stock.

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George Beuoy's New CAPON Book explains. Tells all you want to know about capons. Sixty pages, 40 half-tones from life. Shows each step in the operation in detail. Full and complete, easy-to-use directions. Copyrighted new and revised second edition. One copy for a short time only, prepaid, for **10 cents.**

When you write mention the American Breeder and ask me for a special price on a set of **Capon Tools** just like I use myself. I will refund the money if not satisfactory. If you prefer I will send them C. O. D. by Parcels Post and you can just pay the mail man for them.

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A clean, well-drained barnyard.

Clean utensils, thoroughly sterilized.

Clean, healthy milkers that milk with dry hands.

A small-top milking pail.

Immediate cooling of the milk to 50 degrees Fahrenheit or lower.

Storage of milk at a low temperature until delivered.

A separate house for handling the milk.

An abundant supply of pure water.

This brief statement summarizes the requirements laid down in Farmers' Bulletin No. 602, put out by the United States Department of Agriculture, Washington, D. C.

CANNING SWEET CORN.

The following directions for "putting up" sweet corn at the roasting ear stage are furnished by the United States Department of Agriculture:

Select sweet corn ears of uniform size and proper ripeness. If too ripe the corn will color while processing. (Processing is the canning term for sterilization or cooking.) If not ripe enough much of the food value is lost in cutting the corn from the cob. Use either glass jars or tin cans. For market purposes and greater safety in transportation use tin cans.

Remove husk, silk, shank, tips, and injured or defective places. Blanch corn in boiling water or steam chest for from 5 to 10 minutes. The time depends upon the stage of ripeness, size of ear, and degrees of freshness. Remove the ears and plunge quickly in cold water.

Cut the corn from the cob with a sharp, thin-bladed knife. Pack well in glass jar or tin can; add hot water and a level teaspoon of salt to the quart or No. 3 can. Place rubber and glass-jar top in place, not tight. If using tin, solder cap in place and fill vent hole, or seal completely. Process the corn from 180 to 240 minutes in the homemade or hot-water commercial bath outfits; for 1½ hours in the water-seal outfits; for 60 minutes when using from 5 to 10 pounds of steam pressure, with the steam-pressure canning devices, and 40 minutes when using the aluminum steam-pressure cooker outfits. After processing remove the jars, tighten covers, invert to test the joints, and cool.

If using tin, inspect the soldered end caps for pin-hole leaks. Repair all leaks, allow to stand for 24 hours. If cans are still bulging at ends at the end of this time, one of two things is true—the pack is too full or some live spores are still left in the can. If the latter, replace in sterilizer and process the second time from 30 minutes to one hour.

PATTERNS FOR WOMEN AND CHILDREN.

SPECIAL ANNOUNCEMENT. We will forward, on receipt of 5c, the Summer number of the Home Dressmaker, illustrating the latest embroidery designs as well as hundreds of designs of garments for Misses, Women and Children, and containing two pages of hints on Home Dressmaking.

1038. Ladies' Dressing Sack. Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3 yards of 36-inch material for a medium size. Price, 10c.

1048. Girls' Dress. Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3¼ yards of 44-inch material for an 8-year size. Price, 10c.

1036-1025. Ladies' Costume. Waist 1036 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 1025 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 6⅛ yards of 44-inch material for a medium size. The skirt measures about 1⅞ yards at its lower edge. This calls for TWO separate patterns, 10c FOR EACH.

1035. Ladies' House Dress. Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5 yards of 36-inch material for a 36-inch size. The skirt measures about 2⅛ yards at the lower edge. Price, 10c.

1030. Girls' Two-Piece Dress. Cut in 4 sizes: 4, 6, 8 and 10 years. It requires 2⅝ yards of 36-inch material for an 8-year size. Price, 10c.

1045. Boys' Suit with Trousers. Cut in 4 sizes: 3, 4, 5 and 6 years. It requires 2½ yards of 44-inch material for a 5-year size. Price, 10c.

9889. Ladies' Dress with or without Chemisette. Cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6¼ yards of 36-inch material for a medium size. Price, 10c.

9747. Ladies' Apron. Cut in 3 sizes: Small, medium and large. It requires 4⅞ yards of 27-inch material for the medium size. Price, 10c.



Pattern Coupon.

In ordering patterns, be sure and fill in name and address plainly, also number and size of pattern desired.

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Address all orders to Pattern Department, American Breeder, 225 West Twelfth Street, Kansas City, Mo.

FACTS ABOUT EGG FORMATION.

To the American Breeder:—For some time our pathological department has been observing abnormal eggs and facts as to their cause, significance, etc. Thirty-six abnormally small eggs were recently examined and 25 of these contained yolk or some part of yolk; 5 contained blood clots; 3 contained particles of chalazea; 1 contained a hard lump of albumen; 1 a normal yolk; 1 contained a ruptured yolk and no albumen.

The small eggs were laid in the regular course of laying, the greater number of the hens laying the day before, and the day after, two laying the same day. The common idea is that when a hen lays an abnormally small egg that the hen has laid her clutch and is going broody or else it was the first egg laid by a pullet. This idea is incorrect for as a rule the hens which lay small eggs lay regularly both before and after laying the small eggs. The facts are that any object getting into the funnel of the oviduct will stimulate the oviduct action so that it is moved down the oviduct, causing the albumen and shell to be placed around it.

In certain yards at this experiment station on April 28, 1914, 1,068 eggs were laid. On the night of April 28, there were 27 soft shelled eggs laid, or an average of about 1 egg to 40 hens in these same pens. Of the 18 hens which we know positively laid soft shelled eggs, 12 of them laid on that date, the day before and the day after, showing that the soft shelled egg is laid in the regular course of laying, between hard shelled eggs. With regard to the soft shelled eggs, there are many theories advanced, such as the lack of egg shell forming material, over exertion on the part of the hen or of her egg organs, inflammation of oviduct, etc. The tests made here indicate that a lack of shell-forming material, such as shell, grit, etc., is not always the cause of soft-shelled eggs. They may have imperfect shells, but a lack of material will not produce a soft-shelled egg one day and a hard-shelled egg the day before and the day after. It is interesting to note that principally during the day is Nature's time for the movement of the egg through the oviduct, and at night the egg rests and receives the shell in the shell-forming section. For this reason the soft-shelled eggs are laid in the fore part of the night, and the harder shelled ones later in the night.

The records of 24 double yolk eggs were kept. Six of the hens did not lay the day before, but laid the day after; eight of the hens laid the day before, but did not lay the day after; nine of the hens laid the day before and the day after; one hen laid only one egg during the month. Some of the double yolks were contained in one chalazea, while some of them were in separate chalazea. In eight large eggs containing two yolks which were examined, six eggs contained yolks which were the same size. In two, one yolk was smaller than the other. In three, the yolks were in the same chalazea. One of the largest hens in the contest is a Plymouth Rock and weighs 8½ pounds, and has laid 12 eggs, or not quite 1½ eggs to every pound of her body weight. One of the smallest hens in the contest is a Campine and weighs 1½ pounds, and has laid 103 eggs, or nearly 70 eggs to every pound of her body weight.—T. E. Quisenberry, Director National Egg Laying Contest.

There is an unnecessary prejudice against lumpy-jaw cattle. A considerable percentage of these cases are passed by government inspectors as fit for food purposes. Only the very bad cases, especially those where the disease affects several organs or parts of the body are condemned.—Dr. M. H. Reynolds.

The Underwood Typewriter



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IF YOU are going to New York, don't ignore the pleasure which lies in the JOURNEY there.

Take one of the great Hudson River Day Line steamers at Albany at 8.30 a.m., ANY DAY BUT SUNDAY, and enjoy the cool, refreshing sail down the Hudson.

All through rail tickets between Albany and New York accepted.

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SILO SCHOOL AT MISSOURI FAIR.

The Missouri State Fair Silo School, which is a new feature, is attracting a lot of attention outside of Missouri. The object of the school is not to instruct as to the superiority of one silo over another, but to instruct as to the value of silos and methods of securing best results with them. The farmers will have a varied line to select from, for all of the leading silo manufacturers will have exhibits on the grounds. There will be wooden, brick, tile, steel, concrete and other kinds of silos exhibited.

Advertising Briefs

PUBLIC SALES.
Jacks and Jennets.
October 20 and 21—L. M. Monsees & Sons, Smithton, Mo.
Percherons.
December 16—C. F. Jones, Rippey, Ia.
Shorthorns.
December 16—C. F. Jones, Rippey, Ia.

The Miller Stock Farm of Olathe, Kans., is one of the biggest farms in the vicinity of Kansas City which is devoted exclusively to the production of improved live stock. The live stock on this farm include 25 or 30 jacks and jennets, about an equal number of Standardbred and registered mares, stallions and colts, some pure bred Hereford bulls and a herd of grade cows, a band of heavy brood mares and also a strong force of work mules. The Miller stock farm is now in the market for a registered Percheron stallion and a registered Hereford bull, and is advertising in this issue a line of stock for sale, any of which will be considered in trade for the animals the farm is needing. Olathe has about 20 Santa Fe and Frisco passenger trains daily, as well as electric cars from Kansas City every hour.

J. H. Brakhage, Lahoma, Okla., has 240 acres of good Oklahoma land for sale; price $16,000. Good reason for selling.

Wm. M. Springer, 621 Gas and Electric Bldg., Denver, Colo., is advertising four irrigated alfalfa ranches in Colorado for sale.

James Houchin, owner of Astral King, Jefferson City, Mo., advertises regularly his famous stud of Saddle and Standardbred horses. See or write him for what you want.

L. M. Monsees & Sons on October 20 and 21 sell at auction what they guarantee to be the best public sale offering of jacks and jennets that any breeder, firm or company will sell this year. The offering includes 25 animals of the very highest class, being fitted for the Panama-Pacific Exposition. Write L. M. Monsees & Sons, Smithton, Mo., for catalog and mention the American Breeder.

Leon Van Meldert, Cedar Bayou, Tex., is offering a good collection of Belgian stallions at reasonable prices.

L. W. Roth, Fredonia, Kans., has a black Percheron stallion for sale, or will trade for one equally as good. Any one interested should write for particulars and describe what he has for trade.

Walter Allen, Dunlap, Ill., will sell his Percheron stallion at a sacrifice. Write him for particulars.

Hart Bros., Osceola, Iowa, say they have one of the best collections of imported and home bred Percherons, Belgians and Shires they ever had in their barns, and ask that our readers who are in the market write them for information before buying elsewhere.

Peter J. Eggers, Denison, Iowa, has 30 Percherons and Belgians and one Shire for sale. These stallions are all sold under a guarantee of 60 per cent foal getters. These will be sold at a bargain to early buyers.

Lonzo McClain, Lima, Ohio, was in France and Belgium during the month of May, making a careful selection from the best stallions and mares he could find. These are at his barns now and ready for sale.

Wm. Crowuover, Hudson, Iowa, always has a select lot of Percherons, Belgians and Shires for sale at prices that cannot be beat for quality and weight.

H. Lefebure & Sons, Fairfax, Iowa, write that they have the largest selection of Belgian stallions and mares in America; also some very good Percherons, and defy competition in quality and prices. They will send an illustrated catalogue free for the asking.

W. L. Graham, Mackville, Ky., has a saddle stallion, Percherons and ten jacks for sale, and would be glad to hear from any in the market for above stock.

E. F. Brown, Derby, Iowa, has some Black Hawk Morgans for sale or will trade for small range horses.

Richard Sellman, Rochelle, Texas, has a choice lot of young registered Morgan stallions and mares for sale at all times at moderate prices.

W. H. Fulcomer, Belleville, Kans., has registered Shetland ponies for sale. Mr. Fulcomer is a member of the American Shetland Pony Club.

H. H. Burns, Argonia, Kans., has two large, registered Percheron stallions for sale or will trade one for registered Belgian stallion; also a six year old jack for sale.

A. W. Green, Middlefield, Ohio, has 50 stallions and mares for sale from $250 up to $1,000, and would be glad to send any one in the market for a Percheron or Belgian a circular telling why he can save you money on the purchase of a stallion of either of these breeds.

A. G. Johnson of St. Joseph, No. Dak., has a car load of well bred horses, geldings and mares for sale from three to seven years old.

Diagnosing Ills of Horses

LESSON VII—STRANGULATED INGUINAL HERNIA AND GASTRO INTESTINAL CATARRH.

Before dismissing the subject of colics, it will be in order to call breeder's attention to a condition peculiar to the male that should be of interest to every stallion owner. We refer to the passing of a portion of the small intestine or omentum through the inguinal canal, resulting in a hernia which often leads to strangulation. Whenever a colt is castrated, the structures passing through the inguinal canal undergo atrophy.

This shrinking of these parts induces a reduction of the size of the canal, so that any part of the abdominal contents cannot so readily force their way into the opening.

On the other hand, in case of the stallion, these structures remaining alive incline to keep the canal open to such an extent that there is always some danger of serious experiences in entire horses.

In breeding, the stallion assumes a position that makes it very favorable for the bowels to be crowded through the internal ring. The animal not only assumes a very favorable position when mounted, but, with the abdomen resting on the buttock of the mare, the organs within the abdomen are so compressed that it becomes a rather easy matter for a loop of the intestines to become forced through the inguinal opening.

Again, a stallion by nature frequently assumes a position favorable to inguinal hernia. He frequently, when being led out, rears and stands on his hind limbs. He is quite addicted to rolling and in many ways takes attitudes favorable for accidents of this nature.

As a result of hernia, the bowel becomes wedged into the narrow space, partly through gravitation and partly through the bulk of the abdominal contents crowding it downward.

The imprisoned loop may be forced so far below that it can be outlined through the scrotal walls. Naturally, the circulation is very much impeded in the parts on account of being tightly wedged in the canal. This causes swelling, which only serves to further interfere with the blood supply, until finally the circulation is practically cut off, which means that the imprisoned bowel will promptly die. Such experiences are necessarily painful, and the symptoms of an animal will very much resemble those of ordinary colics.

The animal becomes restless, moves about, paws, points at his side, jerks up the hind limbs, perspires, and may roll. As the circulation becomes more impeded through swelling, all of the symptoms are intensified. The breathing becomes accelerated, as does also the circulation; the animal's whole appearance denotes distress.

If the lubricated arm be inserted into the rectum and the inguinal region explored, quite a large mass will be found at that point. Traction on the mass causes great pain in the affected animal.

This difficulty may be easily recognized by a rectal examination alone, for one has an opportunity for comparing the size of the structure passing through the two rings, and the one containing the bowel will have a much larger mass than normal.

An inspection of the scrotal region will reveal a drawn up appearance on the affected side. The scrotum on that side will often feel cold as compared with the opposite. This is influenced by the degree of interference of circulation through the parts. A careful manual examination high up in this region often discloses the outlines of the mass, showing that it has descended through the canal and protrudes into the scrotal sack.

Strangulated inguinal hernia is a

E. P. Hamilton & Son, Garden Grove, Iowa, is advertising Belgian, Shire and Percheron stallions and mares for sale from $200 up.

W. A. DeMerritt, Plainfield, Ill., has Clydesdale stallions and mares of all ages for sale, also Shorthorn cattle.

John Henry of Fairfax, Iowa, is advertising Mammoth jacks from $250 up.

Henry Obermann & Son, Freistatt, Mo., is advertising Mammoth jacks and jennets for sale at a bargain, also Poland China hogs, bred sows and gilts.

John A. Edwards, Englewood, Kans., has 17 big black jennets which he is offering to sell at a bargain on account of other business. He also has a few jacks.

Al. E. Smith of Lawrence, Kans., always has a bunch of Mammoth jacks and jennets on hand which he prices right.

J. T. Taylor, Foley, Mo., is advertising jacks and a saddle stallion for sale or will consider anything on a trade as he is going out of the business.

J. C. Huckstep, Eolia, Mo., has 32 jacks and 35 jennets that he is pricing right. Everything guaranteed.

U. G. Saunders, Lexington, Ky., has 40 head of fine registered jacks and jennets mostly of his own raising, that he will sell cheap. Mr. Saunders formerly was located at Flemingsburg, Ky.

Louis Koenig, Solomon, Kans., has a black jack, six years old, and some Duroc Jersey hogs for sale.

Chas. G. Munroe, Rushville, Ill., is advertising Hackneys, jack stock and Percherons for immediate sale. All choice stock.

W. F. Dusell, Montevideo, Minn., is advertising 14 good mules for sale at $1,500.

L. R. Dillon, Bixby, So. Dak., is in the market for an aged black or brown Belgian stallion.

B. R. Lewis, Coffeen, Ill., has a black Mammoth jack for sale at a bargain if taken soon, as he is going out of the business.

J. A. Watkins, Warren, Ark., is advertising a 130-acre stock farm for sale at $7,500. Read the ad for particulars.

T. B. McClellan, Stratton, Neb., wants to sell, or trade his registered Percheron stallion for registered fillies or registered Shire or Belgian stallion, or can use good, big jack.

J. R. Harker, 644 Como Blvd., St. Paul, Minn., has 160 acres of clear Michigan land that he wants to trade for registered horses; one young stallion, balance mares and fillies.

The Missouri Auction School of Kansas City, Mo., Col. W. B. Carpenter, president, is holding this month a very successful term of school. Watch the advertisement for date of next term.

Wm. F. Proett of Alexandria, Neb., is advertising three Mammoth jennets for sale or trade for registered Percheron stallion or mares. Also ten mules for sale.

Orval Holloway, Broadwater, Neb., has 25 head of three-year-old geldings for sale; all halter broke and gentle. He is pricing these horses to sell.

E. R. Thomas, Rye, Colo., has a Percheron stallion for sale or trade. Will sell cheap for quick sale or trade for pair of pure bred Percheron mares.

DAIRY DEMONSTRATIONS.

A big special dairy exhibit will be made by the Kansas State Agricultural College at the state fair at Hutchinson, Kas., from September 12 to 19, and at the International Dry-Farming Congress at Wichita, October 7 to 17.

An entire building will be devoted to the exhibit at the fair. A feature will be a farm butter-making outfit at work. Questions will be answered and demonstrations will be made showing the possibility of improving the quality of milk. Two lectures a day will be given. There will also be a ten-day test of the milk of cows, picked out at random, the purpose being to show the benefit of regular record keeping in dairying.

Two carloads of show animals will be taken to the fair, these cows representing the principal four dairy breeds. Among them will be the world's record Ayrshire, owned by the college, and other animals that have made unusual butter records.

Wood and Water

The farmers of our great prairies will appreciate the value of a country with plenty of wood and water, along with good farm land. You can get all that on the KANSAS CITY SOUTHERN RAILWAY. Ask for particulars.

WM. NICHOLSON,
Immigration Agent,
Room 671, K. C. S. Bldg.,
Kansas City, Mo.

Land and Stock For Sale

In prairie belt of Northeast Mississippi, to dissolve partnership; 400 acres inclosed with a 4-foot American fence; 545 acres, two-thirds inclosed and cross fenced. A car of draft bred mares and colts; French draft stallion; sheep and hogs; implements and feed. Immediate possession. Good, permanent pastures; eight miles on pike to county seat and creamery. See Farm and Fireside, July 18, page 5. Subject to prior sale; $35 per acre; equipment included.
G. K. and C. R. DEWEY, Macon, Miss.

For Rent---1002 Acres

STOCK, GRAIN AND FRUIT FARM.
Located on the B. & Q. S. W. Railroad; 138 miles west of Cincinnati; 200 miles east of St. Louis; 18 miles northwest of French Lick and West Baden; 15 springs uniformly distributed over this farm; 3 sets of improvements. Chattel property and crops will invoice about $11,000.00. Owner desires to sell half interest in same, give half of all receipts, and pay half for operating same. One of the best farms of the kind in the state. Hog cholera never known to this farm. This is an exceptional proposition for the right kind of a man. Will give long lease. Do not write unless you are able and mean business. Dr. G. W. Hunter, Hamilton, O.

I HAVE SEVERAL TRACTS OF GOOD LAND
In Rock and Brown Counties, Nebraska, from 360 to 1,840 acres, that I will sell at $12.50 to $15 per acre, with small cash payment, balance ten years or more at 5 per cent. This land is where crop failures are unknown. Soil adapted to alfalfa, corn, potatoes and grain. Water cool and soft. Best of grasses. Excellent climate. Write for further particulars.
G. L. CARLSON, NORFOLK, NEB.

FOR SALE BY OWNER AT BARGAINS

Four choice irrigated alfalfa ranches in Colorado, with excellent water rights, adjoining good ranges; taken on debts. Call on or write
Wm. M. SPRINGER
621 Gas and Electric Bldg., Denver, Colo.

FINE STOCK FARM

For sale. 130 acres; 3 fine mineral springs; hotel furnished; cottage; barns; water works and sewer system. Improvements cost about $20,000. To avoid foreclosure $7,500 cash will get property next 30 days. Address owner,
J. A. WATKINS. Warren, Ark.

TO TRADE FOR REGISTERED HORSES
160 acres of clear land in Michigan. Will take one young stallion, balance mares and fillies.
J. R. HARKER,
644 Como Blvd., St. Paul, Minn.

160-ACRE FARM FOR SALE.
Creek bottom land; improved; 40 acres in alfalfa; fenced hog tight; black sandy soil; good water; good buildings. Priced for quick sale at $10,000; will carry $3,500 at five per cent.
H. H. BURNS,
Argonia, Sumner County, Kansas.

240 ACRES
Good Oklahoma Land.
Improved; good water. Good reasons for selling. Price $16,000.
J. H. BRAKHAGE,
Rte. 1, Box 43, Lahoma, Okla.

very serious and fatal affair and if not relieved in a reasonable time will surely terminate the life of the animal. Its discovery should hasten prompt action and it is often incumbent upon stallion owners to determine whether or not an inguinal hernia exists. Every so-called case of colic in a stallion should call for a careful and thorough examination of this region, with a view of positively settling this point before a drop of medicine is given.

In fact, in all cases of colic one should make it a rule to analyze the case with a view of discovering the cause of the pain. If the cause of the suffering can be removed, recovery takes place rapidly. There is no form of intestinal pain that calls for more prompt action and good judgment than the case under consideration, as the life of an animal depends on what is done in the next few hours.

Other disturbances of the digestive tract arise from catarrhal states of either the stomach or bowels or both. On account of the close relation of these two anatomical parts it remains that if one becomes involved in disease the other will in the course of time participate.

The causes of gastro-intestinal catarrh arise from animals that are weaklings, those that have been pam-

Percheron Stud Colt

For sale. Coal black; a perfect model; recorded in P. S. A.; sound; he can't be beat in Iowa; his breeding is good enough to head any herd. Will be two years old September 14, 1914. Price $500.
AMOS HANSON, COLLINS, IOWA.

CLYDESDALE HORSES

Stallions and mares of all ages for sale.
ALSO SHORTHORN CATTLE.
W. A. DeMerritt
Route 2. Plainfield, Ill.

IMPORTED AND HOME BRED STALLIONS AND MARES.
PERCHERONS, BELGIANS. SHIRES.
The best importation we ever made is now in our barns ready for inspection. The mares include some of the best fillies that came out of the Perche this year. See what we have before buying elsewhere. Address Hart Bros., Osceola, Iowa.

Percheron Stallion

For sale. Registered; black; 8 years old; large bone; good disposition and a sure breeder. Has booked over $1,400 this year. Must sell and will sacrifice.
WALTER ALLEN,
DUNLAP, Peoria County, ILL.



FIFTY STALLIONS AND MARES.
$250 to $1,000 Each.
Write for my illustrated Circular telling why I can save you money on the purchase of Percheron or Belgian stallion or mare.
A. W. GREEN,
Middlefield, Ohio.
R. R. Sta., E. Orwell, on Penna. Ry., between Ashtabula and Warren.

FOR SALE OR TRADE
Two large, handsome, registered Percheron stallions, three and five years old, for sale or will trade one for registered Belgian stallion.
Also 16 hand registered Mammoth jack, 6 years old; second prize jack in the American Breeder Jack Show of last summer. Will sell to some one wanting an extra good one.
H. H. BURNS,
Argonia, Sumner County, Kansas.

PERCHERON STALLION
For sale or trade. Imported; gray; weight 2,000 pounds or better; sound and sure; colts to show; work in all harness; gentle, anybody can handle him. Will sell cheap for quick sale or would trade for pair of pure bred Percheron mares, two years old or older. Write for full description.
E. R. THOMAS, Box 52, RYE, COLO.

PERCHERON STALLION
For sale or trade. Osmer, recorded in P. S. A. 89263; color steel gray; foaled April 9, 1911; weight 1,850 pounds; sound; licensed to stand in Nebraska. Will trade for registered fillies or registered Shire or Belgian stallion. Can use good, big jack, 15 hands or over. This ad appears but once.
T. B. McCLELLAN,
Stratton, Hitchcock Co., Nebraska.

INFORMATION WANTED!

To All Who Read This Paper:

This is our personal request to you, as a reader of the American Breeder, to give all other readers, as well as ourselves, the benefit of your ideas and information. Please fill out all blanks below (in answer to the questions and requests), cut out this entire space and mail it as soon as convenient to the **American Breeder, Editorial Dept., 225 West Twelfth St., Kansas City, Mo.** Please say just what you think; honest criticism is good for anybody; we are not seeking praise. If you do not wish to cut your paper, drop us a postal card and we will send you an extra blank and a stamped envelope for its its return.

How many farm and live stock papers are you familiar with, besides the American Breeder?

Rank the American Breeder and these other papers in the order of their usefulness to you, writing their names in the spaces below.

1st .....2d .....
3d .....4th .....
5th .....6th .....

On what class of live stock have you found the teachings of the average farm paper most lacking? .....

In your community, how does the total value of horses and mules compare with the total value of cattle and hogs (figure carefully)? .....

Is the horse information given in the American Breeder important to the average farmer?

Do you find the information printed in the American Breeder on hogs, for instance, useful and practical for most stockmen and farmers? .....

Would you advise increasing, or decreasing, the space given to cattle, hogs and feed crops?

Name subjects in either of the above classes you would like to see taken up.....

Please write after each name in the following list the figure (1st, 2d, or 3d, etc.) to show what place each of these departments or features holds in its importance or interest to you:

Editorial Page, ...place.
Questions and Answers,.....place.
Lessons on Diagnosing Horse Ills.....place.
Lessons on Fundamentals of Breeding, ...place.
Livestock, Hay and Grain Market Review, ...place.
Photo Stallion Shows,.....place.
Hog Breeding Lessons, ...place.
Subscribers' Correspondence, ...place.
Horse Breeding Lessons, ...place.
Pictorial Reports of Fairs.....place.
Poultry Experiment Reports, ...place.
Advertising Department, ...place.

Please suggest the feature or department which you would like best to see added to the American Breeder.....

Please name the feature or department which you think could best be taken from our columns. .....

In what features of the American Breeder do you think the ladies of your family take the most interest? .....

What faults do they find with the paper?... .....
.....

What is the average value, per head, of the horses you own? $..... Of your cattle? $..... Of your jack stock and mules? $..... Of your hogs? $.....

How much land do you own?.....acres. How much do you lease?.....

Name the classes of reliable articles you would like to see advertised in the American Breeder? .....
.....
.....

Ask the lady of the house to write in the following lines, the articles she would like us to advertise. .....
.....
.....

How many new subscriptions to the American Breeder do you think you will be able to send within a year?.....

Please write name and address on following lines. and below that answer "yes" or "no" to the questions asked.

Name .....Rural Route.....
Town ..... State.....

May we publish your name in connection with the above?.....

Paramount Stock Farm

Breeds and Imports

Percherons, Belgians and Shires



Home of the Iowa and International Grand Champion FARCEUR 7332 (72924), the greatest Belgian stallion in the world today. He is proving an excellent stock horse. Send your good mares to him and raise the best. Always a select lot of stallions and mares for sale at prices that cannot be beat for high class, sound, 2,000 to 2,500 pound horses.

WM. CROWNOVER, Hudson, Iowa.

Belgian Emporium of America



Largest collection of Belgian Draft Stallions and Mares in America. Home of Jules Remi, first prize Belgian stallion, Iowa State Fair, 1912 and 1913. Also some very good Percheron stallions and mares.

We have 100 pure bred mares and colts in 11 different pastures. We never had as large and as choice a collection of mares as at present. Come to Cedar Rapids or Iowa City, Iowa, and take the interurban to Lefebure Station, and telephone to Fairfax for auto to meet you at the interurban. We defy competition in quality and prices.

Four large farms all adjoining; 7 large barns. Illustrated catalogue free.

H. LEFEBURE & SONS, FAIRFAX, LINN COUNTY, IOWA.

WHITEOAK STOCK FARM

American Bred Percheron Stallions and Mares.



The best to be had of the breeder—can show sires and dams of most of them. **Always a large number** to select from at reasonable prices, considering the kind of stock. Address your wants to **D. Augstin, Carlock, Ill., R. F. D. No. 2.**

Carlock is on the L. E. & W. Ry., and thirty miles southeast of Peoria. ten miles northwest of Bloomington, Ill.

A BRAND NEW IMPORTATION!

I was in France and Belgium all through May, making early, careful selections from the best stallions and mares to be found. These are now at my barns and ready for sale, along with some desirable American bred animals. It is a good time to buy.

LONZO McCLAIN & SONS, LIMA, OHIO.

THIRTY PERCHERONS AND BELGIANS



and one Shire. They range in age from 1 to 7 years; all sound and heavy boned; weighing from 1,800 to 2,200 pounds. There are 17 stallions and 13 mares. I will also sell my herd stallion, Jupiter 65723, coming 5 years old; weight, 2,200.

These stallions are all sold under a guarantee to be 60 per cent foal getters. I have four year olds that weigh 2,200; 2 coming 3 that weigh 1,800. Can sell a good ton stallion for $750; sound and right in every way; some a little higher, and some lower. I will sell at a bargain to early buyers. I have both imported and home bred Stallions and mares of all ages for sale.

PETER J. EGGERS, DENISON, IOWA.



Oak Lawn Stock Farm

Breeds and imports champion draft stallions and mares; Percheron, Belgian and Shire. All stock for sale at reasonable prices. Come and see them before you buy.

GEORGE EGGERT, Newton, Iowa.

pered and too little exercised, animals that have been fed unfit food such as moldy grain or hay, coarse indigestible provender lacking in nutrition, food covered with frost or ice, drinking a contaminated water supply such as comes from ponds and wells into which surface water has run. An animal that has long been kept on a grain diet and denied access to grass a part of the year often becomes a victim. This is perhaps why this disorder is so frequently found among old horses, although it might be stated that old age predisposes to the trouble.

The practice of working animals shortly after feeding also has an influence in provoking digestive derangements of this class, particularly if the work is hard.

Some seasons gastra-intestinal catarrh becomes general in a locality, showing that the season has been favorable for the development of a class of micro-organisms that are capable of inducing irritation of the digestive tract, they finding their way to the seat of trouble along with the food.

The symptoms are influenced by the organs involved. If the stomach only is deranged the animal will often show an irregularity of appetite, will consume its feed with apparent relish for a few meals and then for a day or two will be off feed. Such cases seem to have a preference for coarse food and will often consume straw or soiled litter by preference. Thirst is more or less suppressed. An animal so affected will yawn frequently.

The mucous membrane of the mouth may be either congested or pale, depending on the duration of the disease. It frequently presents a dirty, yellow appearance and may be coated with a greasy lather of frothy mucus that gives off an insipid, sweetish odor.

Swelling of the roof of the mouth frequently occurs in this affection, giving rise to the well-known condition popularity known as lampas.

The bowels may remain normal, but are quite inclined to be constipated.

The mental condition varies much in accordance with the severity of the affection. The animal is inclined to be dull and listless and does not keep up to its place while at work. It perspires readily and is easily fatigued. Following periods of extreme hot weather many horses are "knocked out" for several weeks. As a rule, they are suffering from digestive derangements of this class. Very little fever is present in these cases and if the thermometer discloses such it is of short duration.

In intestinal catarrh the appetite remains good and the animal even drinks more fully of water than normal. The chief interest centers in the condition of the bowels. As a rule, they are loose, especially after exercise.

The animal affected with chronic scours is nearly always a victim of intestinal catarrh. The faeces are soft, mushy and foul smelling and often contain particles of grain that has been imperfectly digested. Such an animal is a very unsatisfactory worker. He scours very shortly after being warmed up, is repulsive, fatigues easily and wastes the rations consumed, because of inability to digest them.

Peculiarities of certain horses cause them to scour on certain food, A study of the individual requirements of animals should always be made by the man who feeds. What one horse would thrive and grow fat on will sometimes prove unwholesome and deranging to another. Whenever an ill effect is observed in an animal, from the nature of the food supply, an effort should at once be made to promptly correct it. There is no question but what this is too little heeded. Horses, on the whole, are fed too much alike and too little attention is paid to the individual needs of animals. An animal that is deranged by being fed the same as his mates may be just as serviceable as any member of the lot if care is exercised in seeing that he gets only such food as agrees with him.

Gastro-intestinal catarrh is of particular interest to the mare owner on account of its frequent prevalence among the new born.

It must be remembered that the udder of the female is a great channel of elimination for the substances not utilized by the animal economy. Material that may be taken into the body as wholesome food may, in the process of splitting up into its component parts, have some portion of it so altered by the chemical change it undergoes that the resulting product becomes irritating and even poisonous to other animals that may consume the same. Such a condition often is the case when the digestion of a foal is disturbed from consuming its mother's milk.

Particularly is this true in the case where the mother is fed too heavily shortly after foaling. Too heavy and rich a milk flow is established, resulting in the mare giving more than the colt can properly handle and what may first start as a case of indigestion will, if repeated, merge into one of catarrh of the stomach or bowels or both, and the nursing foal suffers from a severe and prostrating diarrhoea.

On account of the youthful nature of these little fellows, they are unable to withstand the siege of disease and they often succumb in an alarming short space of time to what was dealt out to the dam through the kindliest feeling for her and her offspring's welfare.

In order to successfully rear the young without checking growth or endangering life, one cannot be too careful in the general care of the dam during the colt's infancy. Hard and fixed principles must be adhered to; the food supply must be of the best

Choice Percherons

For sale or trade for cattle—three Percheron mares with colts at foot; one colt by the great horse, Victoria, the sire of the champion, Pink. Mares weigh from 1,800 pounds to a ton. Colts sired by ton imported horses; one of mares imported. Mares and colts all blacks.

One dark brown Percheron stallion, six years old, weight a ton. Stock all registered in P. S. A. This bunch will be sold cheap, as owner has other business and cannot attend to them.

W. H. THOMAS, BLUFF CITY, VA.

FOR SALE OR EXCHANGE

FOR ONE EQUALLY GOOD.

One black registered Percheron stallion. Good in every respect; bred from imported stock; is 16¼ hands high; weighs 1,750 pounds in moderate flesh. A good sure sire, and colts to show, but many of his fillies will be old enough to breed and I must have another horse If you are interested, come or send full description and breeding of stallion you have to trade.

L. W. Roth, Owner. R. 1, Fredonia, Kas.

TWO IMPORTED REGISTERED MARES.

For sale. Scaling over two tons. One black; 7 years; an International prize winner; other gray; 13 years; a Springfield championship winner. Both sound, clean, unblemished; good breeders and workers of oustanding class as their show records evidence, and again in foal to Jupiter 11. $1,200 for pair.

W. T. WILKINSON,
Eureka, St. Louis County, Mo.

ROYAL BELGIAN STALLIONS.

The best collection of Belgian draft stallions, **2 to 4 years old**, that was ever imported to Texas, for sale at reasonable prices. Three blue ribbon winners, a champion and a sweepstake winner. Can be seen in Galveston, Houston and at my farm at Cedar Bayou. All first class breeders and well acclimated. **LEON VAN MELDERT, Cedar Bayou, Harris County, Tex.**

WANTED

Aged, solid black or brown Belgian stallion. Must be right every way.

L. R. Dillon
Bixby, South Dakota

BELGIAN, SHIRE AND PERCHERON STALLIONS

and mares, also Standard bred stallions and mares, $200 and up. E. P. Hamilton & Sons, Garden Grove, Ia. (Mention this paper). 23 miles S. W. of Charlton, Ia., 82 miles south of Des Moines, Ia., at Leroy.

AUTOMOBILE

TO TRADE FOR HORSES.

One, almost new, 1914 model, 35 H. P. 5 passenger automobile, for registered draft mares or stallions.

Route 5, Box 25, Hector, Minn.

BREEDING BARN AND STOCK For Sale.

Consisting of 20 acres adjoining the town of Charleston, Ark., in a fine breeding locality with plenty of business; one five year old jack, weighing 1,100 pounds, 6 ft. girth and 9½ inch bone; 10 year old jack, 15 hands, weighs 975; 4 year old jack, 14½ hands high, all black with white points. Also one grade Percheron stallion and a registered trotter with trotting record at 2:17¼. Will sell any of the stock or breeding barn separate. If interested, write for complete description of anything you want in this list. Write to

JOHN T. ADAMS, Charleston, Ark.

Horses for Sale

Car load or more of well bred horses, geldings and mares from 3 to 7 years old, weighing from 1,200 to 1,600 and over; gentle. Nearly all have been handled and some are well broke. Address,

A. G. JOHNSON,
Box 14, St. Joseph, No. Dak.

TWENTY-FIVE HEAD OF HORSES

FOR SALE—These are three year old geldings and are sired by a good stallion; are all halter broke and gentle. A nice, even bunch of good quality, and priced to sell.

ORVAL HOLLOWAY, Broadwater, Neb.

Miller Stock Farm

A Big Tract of Rich Land Devoted to Improved Live Stock Production.
AUGUST BULLETIN.

WE WANT One good registered Percheron stallion, right in every respect; one good registered Hereford bull, and can handle work mules and heavy mares any time.

FOR SALE OR TRADE.

One 8-year-old jack, $300; three 3-year-old jacks, $600 to $750; one 2-year-old jack, $1,000; four yearling jacks by Highball, world's record priced 2-year-old. Standard bred and registered stallions as follows: Two grandsons of Croesus, 3 and 4 years, at $150 and $175; two bay sons of Claremont Director (Matinee) 2:17, a 1,260-lb. horse, at $250 and $300. The breeding, style, speed, manners and quality will astonish you, the prices mean business.

From our jennet herd (headed by one of the very few **great big good jacks** living) we can always spare a few head. Can always spare a few work mules or brood mares.

Give Particulars Fully and Truthfully; We Trade No Other Way.

F. M. LORIMER, Mgr. Olathe, Kansas

TRY THIS TEST

Shut your eyes; think over all the famous saddle stallions from the breed's "foundation stones" up to the ideal of today—

ASTRAL KING 2805

Think of what each tribe has produced; what each horse has done, and see if you can name a single living stallion that (measured by his individuality, his show record and the character and winnings of his get) has a right to rank with the notable whose name appears above. You cannot?

Well, don't feel badly about it; there are others. Do as they are doing; make up your mind to have some Astral King blood. Write this famous stallion's owner.

JAMES HOUCHIN, Jefferson City, Mo.

DISPERSAL SALE

SHORTHORNS, DUROCS, STALLIONS, JACKS AND JENNETS.

If you are in the market for some good registered Shorthorn cattle or Duroc hogs, either young or matured stuff, will price cheap for next 30 days.

Have one classy grade combination stallion; one registered trotter, three good jacks and two good jennets, one with jennet colt by side. All priced to sell quick. Two of jacks are matured and No. 1 good mule jack; one is a coming two year old that will make 16 hands and be good enough for a herd header. One jennet about 15 hands and one 16 or over standard, with bone and body to match. All well colored and pointed except one of matured jacks which is a brown in color. This stuff must all sell soon, so get busy if you want a bargain.

Complete description and price of any above stock upon application.

CLYDE ROPER, ROUTE 7, FULTON, KY.

SADDLE STALLION, PERCHERONS AND 10 JACKS.

For sale. Registered saddle stallion by the Great Chester No. 10; sound and a good breeder. Two, two-year-old registered Percheron stallions and ten jacks from yearlings to five years old; from 14½ to 16¼ hands high for sale at reasonable prices. Write your wants or come and see me.

W. L. Graham,
Mackville, Washington County, Ky.

Hackneys, Jack Stock and Percheron

FOR IMMEDIATE SALE.

Four Hackney mares; three Hackney stallions; one 2-year-old jack; two jennets; one Percheron stallion. All choice stock.

CHARLES G. MUNROE, Rushville, Ill.

REGISTERED MORGANS FOR SALE.

A choice lot of young stallions and mares, weanlings to 4 years old. Weanlings and yearlings can be crated and delivered to any point by express at a moderate price. Can sell fillies and stallions of different breeding that would be suitable to mate together. Could sell a car load of registered mares and fillies that have been bred to registered Morgan stallions, at a very moderate price. Most of my young stock is out of The Admiral. Headlight Morgan is now at the head of my stud and I am expecting at least 40 colts from him next spring.

RICHARD SELLMAN, Rochelle, Texas.

BLACK HAWK MORGANS.

For sale, or will exchange for young, small, unbroke range horses, six registered black stallions; two matured; 15½ hands; 1,200 pounds; two, three years old and two, two years.

E. F. BROWN, DERBY, IOWA.
R. F. D. No. 2.

EXCELSIOR SHETLAND PONY FARM.

Registered and High Grade Ponies for sale. **W. H. Fulcomer, Belleville, Republic County, Kansas, Member American Shetland Pony Club.**

BREEDING BUSINESS FOR SALE

or lease for term of years. Sikes stallions and breeding business; the oldest established breeding business, located in one of the richest stock and farming counties in Western Illinois. No competition. Farm consists of 200 acres good farm land; fine shaded summer feed lot; large, light and best ventilated breeding barn in county; never failing spring well of purest water. Terms cash or good paper, or will consider a trade of breeding business and stallions together with 160 acres best Ransom County, North Dakota farm land, for small improved farm or good paying business. Write today, as this ad will not appear again. Address,

N. C. SIKES, R. F. D. 2, Dallas City, Ill.

quality and fed in moderation, no sudden changes are permissible. The labor of the mare should be in moderation for a time. As the foal grows older it will withstand more hardships in all directions until it reaches a point in hardihood where it will be able to cope with the usual conditions of the farm.

MANUAL TRAINING TO STIMULATE BETTER FARMING METHODS.

Germinating trays, chicken coops, forcing boxes, and cold frames will be made in the rural schools that follow the advise of George E. Bray, industrial engineer in the Kansas State Agricultural College extension division.

Manual training work that will be of practical value on the farm is advocated by Mr. Bray, who urges that activity of this character be closely correlated with the teaching of agriculture. "Where one article is made in school," he says, "several of the same kind should be made at home. In some cases merely the suggestion may be made in school, and the pupils will follow it out in their homes."

Saddler and Standardbred

At the Cleveland meeting the famous trainer Geers drove two of his fastest against time and succeeded in each case. Etawah, trotting to beat 2:07½, made 2:04, and Anvil, started to beat 2:03¾, trotted his mile in 2:02¾.

Two carloads of registered saddle mares and colts have recently been purchased by the Adirondack Farms of New York and saddle horse breeding will be added to the draft horse breeding operations of this establishment. At the head of this new stud has been placed Indian Cloud, by Cloud King.

If you live in Missouri and want a classic on the American Saddler send to the State Board of Agriculture for Prof. Trowbridge's bulletin on this breed. It is probable that the supply will not permit sending this bulletin to other states.

Ashland Wilkes, sire of 185 standard performers, died recently past 30 years of age. Ashland Wilkes was one of the greatest of his famous strain.

The buildings at King Hill Stock Farm near St. Joseph, Mo., were recently destroyed by fire. Feed and equipment were lost, but no horses.

James Houchin of Jefferson City, Mo., announces that he will show no Astral King weanlings or yearlings this year. And it isn't because he hasn't plenty of the show kind, either.

The Topeka (Kansas) horse, Walnut Grove 2:05¼, by Constantine 2:12½, owned and driven by A. Ruthven, new in the sulky relatively, at Cleveland this week came in second all three heats in 2:05¼, 2:04¼ and 2:05¼, getting second money, which, in the big field and fast company, is something to talk about, even if not booked a winner. Predictions were not uncommon that the young man, Ruthven, with his limited experience behind speed horses was biting off more than he could chew in assaying to race in the Grand Circuit with the sulky kings to contend against.—Spirit of the West.

While Kentucky's Best was winning the $1,000 Saddle Horse Stake at Columbia, Mo., Astral King was winning the same big money at the Moberly, Mo., horse show. At Jefferson City the week before Astral King had beat Kentucky's Best for the same prize.

C. K. G. Billings has announced the permanent retirement of Uhlan, probably the world's most perfect trotting horse. Before trotting his mile in 1:54½ last fall Uhlan had broken practically every world's record to which he was eligible, beginning with the four year old trotting record and ending with the fastest mile either trotter or pacer had made. Uhlan is only about ten years old now and his exhibition last fall of such perfection in symmetry, action, manners and speed as will make him the ideal Standardbred for many years to come, showed him to be in the prime of life. But his millionaire owner does not need the money, and he thinks a lot of Uhlan. The trotting horse world will always regret that Ublan was not kept a stallion, but as a colt he gave little hint of what there was in him.

Right in the middle of the hot weather Jefferson City, Mo., pulled off one of the best horse shows of the season, and Jefferson City is not the Saddle Horse Capitol of the West either—that is over at Mexico, Mo.

14 Good Mules For $1,500

Three 4-year-olds, broke to work. Four 3-year-olds and seven 2-year-olds.

All in good condition and cheap at the price.

W. F. DUSELL, Montevideo, Minn.

BLACK MAMMOTH JACK

For sale. 15.1 inches high; standard; black, with white points; six years old; weight around 1100 pounds; quick as a horse. Will guarantee him in every way. Cost $1000 three years ago. I have sold all my stock and am going out of the business. Can have at a bargain if taken soon.

B. R. LEWIS,
Coffeen, Montgomery Co., Illinois.

JACKS AND SADDLE STALLION

FOR SALE OR TRADE.

Jacks are 14 and 15 hands high; right in every way. Saddle stallion is 16¼ hands high. Will trade part or all for good automobile. Will sell cheap or will consider anything on a trade as I am going out of the stock business.

J. T. TAYLOR, FOLEY, MO.

Three Mammoth Jennets

For Sale or Trade.

Good ones. Two are regular Jack Jennets. Will trade them

For Registered Percheron

stallion or mare. Also have ten mules for sale—5 months to 5 years.

This ad. appears but once.

WM. F. PROETT, ALEXANDRIA, NEB.

A BARGAIN
In Mammoth Jennets

I have 17 good big black jennets, which on account of other business, I want to sell. There is a bargain here for somebody who has the right kind of a jack to breed them to. A few jacks for sale also.

JOHN A. EDWARDS, Englewood, Kas.

JACKS.



20 good black jacks and some good jennets; coming 3 to coming 8 years old. Large, heavy boned, broken to mares and prompt servers. Prices reasonable. Come and see me. Barns two miles from town.

Phil Walker. Moline, Elk County, Kas.

BIG MAMMOTH JACKS AND JENNETS.

For sale. I have some good jennets which are kin to my herd jack, for sale at a bargain. Also young jacks, one to coming four years old, and the large, big boned Poland China hogs, breed sows and boars old enough for service, and pigs. Seven miles North of Monett on Frisco R. R., and six miles Southwest of Hoberg on Mo. Pac. R. R. Write for prices to

Henry Obermann & Son, Freistatt, Mo.

FAIRLAND JACK & JENNET FARM.

40 head of fine registered jacks and jennets for the fall trade. I raise most all my jack stock and can sell them cheaper than any man that deals in them. My jacks are all black with white points; in age from colts to 8 years; in sizes up to 16 hands. Formerly of Flemingsburg, Ky.

U. G. SAUNDERS, FAIRLAND STOCK FARM, LEXINGTON, KY.

JACKS AND JENNETS

ALWAYS ON HAND.

Large boned black Mammoth jacks, 15 to 16 hands; registered; 40 miles west of Kansas City on Union Pacific and Santa Fe railroads.

AL. E. SMITH,
LAWRENCE, KAS.

A Bunch of Jacks
and
A Bunch of Jennets

For sale, or trade for land.

H. A. SCHWATKEN, Hammond, Kans.

JACK---DUROC HOGS

For sale. A black jack; light points; six years old; 15¾ hands high. Also Duroc hogs.

LOUIS KOENIG, Solomon, Kans.

HINNIES

From a Nebraska Breeder's Experience

To the American Breeder:—I am sending you herewith a photograph of a capsule hinnie colt, with its dam, and also a photo of its sire. The colt was one month old when the picture was taken. The jennet belongs to William Frey of Duff, Neb., and was bred with a capsule to get this colt. The colt's sire is a grade Percheron weighing 1,500 pounds and standing 65 inches high. I selected him especially for use on jennets, in the breeding of hinnies. While the colt shown is from a capsule, I can breed a 12-hand jennet, direct to him, by standing the jennet on a raised platform.

In response to A. P. McGregor's inquiries regarding the raising of hinnies, let me say, it is not advisable to breed jennets smaller than twelve hands high and ones 13 hands with good heavy bodies and not less than 6½-inch bone would be preferable. Anything much larger than the latter size would perhaps produce more profit raising jacks than hinnies. As to kinds of stallion to use, my ideal would be a nicely formed ¾ Percheron, ¼ Morgan cross, about 16 hands high and weighing from 1,500 to 1,600 pounds. However, a comparatively small, active, pure-bred Suffolk or Percheron would doubtless give good results, or a good Coach stallion might answer the purpose.

I would not consider a Standard bred stallion at all, and figuring from the theory that the offspring should at maturity weigh as much as one-half the combined weight of the sire and dam, a 900-pound hinnie would be the maximum weight to expect from mating a 600-pound jennet to a 1,200-pound Morgan stallion, and in all probability but a very small per cent of the offspring from such matings would attain 900 pounds in weight. Therefore, I am not inclined to favor the pure-bred Morgan as a very promising sire for hinnies.

For a very large herd of jennets, it would be necessary to have a stallion that would make services on them, as it would be almost, if not quite, impossible, to invariably have a mare in heat at the proper time to permit the use of an impregnator, although I have had good success by that method of breeding jennets. Another item that must be considered is a jack, to be led out in sight of the jennets every two or three days; otherwise, many of the younger jennets and some older ones (if suckling colts) will go through the heat period with no noticeable outward signs.

My experience has been that a larger per cent of jennets will get with foal from a given number of services, than will mares, although that may be caused by many mares being overworked during the breeding season.

I suspect it would be quite a simple matter to learn where is the best place to procure breeding stock, e. g., decide on what is wanted and insert a small ad in the American Breeder, and the replies will answer that question more accurately than any individual can.

It may interest some of your readers to know that there is more or less difference in appearance between mules and hinnies. In comparison with the mule, the hinnie's ears will average shorter, mane and tail considerably heavier, and they have a somewhat flatter bone and their feet are broader. Instead of braying like the mule and ass, they whinney similar to the horse.—Rede Hurst, Loup County, Neb.



A CAPSULE HINNIE COLT AT ONE MONTH, WITH ITS SIRE AND DAM.

TWO SIDES TO HINNIE QUESTION.

To the American Breeder:—So much has been said in your paper about raising hinnies, I feel I must make a holler to all readers of American Breeder. Handle the hinnie question with a big pair of boxing gloves. I have tried for six years used saddle stallion, trotting stallion and draft horse; natural service and impregnator. Tried from one to four every year for six years. Tried jennets that had never been bred; tried jennets with colts nine days old. Have been in the horse breeding business for 16 years; have used the impregnator for over 12 years with good success. Have never got a jennet in foal by a horse yet; would often try three or four times; would breed them to a jack and get them in foal right away. My advice to brother breeders is: Don't buy over two, and try them until you are satisfied with what you can do. I have no burros for sale.—B. L. Wilson, Washington County, Kans.

A GOOD FLY SPRAY.

To the American Breeder:—Three parts of fish oil and one part kerosene sprayed on steers gave excellent results, and is a practical application when many are to be treated. Spraying an animal is best done with a knapsack sprayer, and it takes only two or three minutes or less to spray each steer or horse. This spray appeared to keep off all flies for two days. If a herd was to be treated, one man might stand on either side of a narrow passage through which the animals had to pass, and quickly treat a large number.—F. L. Washburn, Entomologist, University of Minnesota.

AN EDITORIAL APPRECIATED.

To the American Breeder:—I have read with a great deal of interest your editorial of July 5, on the county farm advisor. I certainly appreciate this spirit of helpfulness in our work, and it is with pleasure I note your willingness to assist. I am sure that the Farm Advisors will appreciate the courtesy of sending the paper to them on exchange, and I hope they will be able to be of some assistance to you.—D. H. Doane, Professor of Farm Management, University of Missouri, Columbia, Mo.

THE PROFIT FROM HOGS FOLLOWING CATTLE.

A careful accounting system applied to 24 Iowa farms managed by men known to be careful and experienced feeders of cattle show conclusively that the practice of following cattle with hogs is profitable, except possibly when young cattle in large numbers are fed on ground corn and the cost of grinding is very low. The best authorities believe that with the present narrow margin on fat cattle, it is inadvisable to feed without hogs.

On the 24 Iowa farms in question, during the feeding year beginning in the fall of 1909, the average profit on 961 cattle fed in bunches was $2.05 per head, not counting the profits on the hogs following them. The prices received for the cattle were very satisfactory. The 1,504 hogs following these steers, and which were given extra grain, were sold in the spring of 1910 with a profit of $6.67 per hog, which, if credited to the steers, gave a profit of $12.49 per steer. In the following feeding year, 1910-11, prices were unsatisfactory and this caused a loss of 78 cents per head on 1,138 cattle fed on 28 farms. The 1,646 hogs following these steers, however, returned an average profit of $3.33, and when this profit on the hogs was credited to the steers, there was a net profit of $4.04 per steer.

TESTING NEW SILAGE MATERIAL.

In small experimental silos at the Kansas station are being preserved respectively, alfalfa alone, alfalfa with corn chop, alfalfa with molasses, alfalfa with molasses feed, alfalfa with straw, alfalfa with rye, and rye alone. Bacteriological and chemical tests are being regularly made of the contents of the silos. A new series of tests will be started this fall to ascertain the value of corn silage with the ears off and with the ears on, and of kafir silage with the heads off and with the heads on.



Your Best Chance

to head your jennet herd with the kind of a jack you long have wanted, or to add a few jennets of the kind which produce the most profitable as well as the highest selling increase, will come

October 20 and 21

For on those days we sell an offering which we guarantee the best that any breeder, firm or corporation will put up this year.

100 JACKS AND JENNETS AT AUCTION

Including the Great Show Herd of 25 head, selected and reserved for the San Francisco World's Fair next year.

Nothing sold before the sale. Send for catalog now, mentioning the American Breeder.

L. M. MONSEES & SONS, Smithton, Missouri

GOOD JACK WANTED.

I have a few young jacks and 17 jennets and must sell the bunch at once or make some trade to get a jack not akin and good enough to breed the jennets to. They are big, black, mealy nosed and good.

JOHN A. EDWARDS, Englewood, Kas.

FAIRVIEW JACK AND JENNET FARM



32 Jacks and 35 Jennets, the best that grow, 14½ to 16½ hands high—Jacks with lots of bone and substance. Everything guaranteed as represented. Prices right. Address J. C. HUCKSTEP, Eolia, Pike County, Mo.

MAMMOTH JACKS

For sale—Large, heavy boned, 15 to 16 hands high. Prices from $250 up. Located eight miles west of Cedar Rapids, Ia., near Fairfax.

JOHN HENRY, Fairfax, Ia.



KENTUCKY JACKS AND SADDLERS.

A splendid lot of big bone, Kentucky mammoth jacks from colts to six years old. A fine lot of saddle stallions, mares, colts and fillies. We are making very attractive prices to parties who buy in the fall. A guarantee with every animal sold. Home grown blue grass seed and cedar fence posts.

COOK FARMS,
Box A. 436, Lexington, Ky.

QUESTIONS AND ANSWERS

(Continued from Page 6.)

1238—ABORTION—I bred a five-year-old mare in good flesh this spring. She did not show any signs until seven weeks when she came in heat. I examined her and found her womb open and bred her again. She ran seven or eight weeks longer and appeared to be in heat again; she had a large bag. I bred her again the next day and the milk was streaming out of her bag. What was the cause of her doing that way?—Kansas Subscriber.

REPLY—It appears that your mare aborts early and we would suggest that you discontinue breeding her until the milk flow has dried up. Proceed to dry her up in the same way you would dry off a cow—scanty rations and milk her out only as often as needed to keep her udder from becoming inflamed.

1239—WOUND ON SHEATH—My neighbor called on me to see what was the matter with his gelding. His sheath was swollen and in making the examination I found about four inches from the surface there was a pocket about the size of an egg and almost half through the sheath. It had matter in and around it and the edges seemed to be rather hard. His penis was sort of raw from the end up about three inches, with some yellowish matter on it. He is about 13 years old. His kidneys were normal and he seems to eat well, but the food doesn't seem to do him as much good as it should. I learned that he had been ailing for at least one year. Kindly advise treatment. Also what the ailment is, and if it is a hopeless case or not.—Oklahoma Subscriber.

REPLY—Search the wound carefully for screw worms and if none are found, write us again.

1240—PREVENTING ANNOYANCE FROM FLIES—Would like to know what to use on my stock to keep the flies from annoying them so. The flies are awful here this season.—Oklahoma Subscriber.

REPLY—There is no agent that we know of that will keep flies from annoying stock when only applied occasionally. There are several preparations on the market that may be applied in liquid form by means of a spray pump that if used two or three times a day will greatly lessen the annoyance of these pests.

1241—DISTEMPER IN HORSES—I have been troubled with distemper in horses for some time, and am not fixed to keep them separate. What causes distemper in horses? What are some of the remedies for it?—Kansas Subscriber.

REPLY—By the term "distemper" we presume you refer to the disease known as strangles. The proper way to prevent the disease among your stock is to have your veterinarian treat them with bacterin. The American Veterinary Supply Co. of Kansas City will send to any reputable veterinarian these preparations and you will find them quite effective in preventing the disease.

1242—DISINFECTANTS FOR WATERING TROUGHS—What are disinfectants for watering troughs? How much would you use that would be safe for any kind of stock and enough to prevent contagion of disease?—Kansas Subscriber.

REPLY—It is rather impracticable to rely on disinfectants in the water supply with a view of preventing the various infectious diseases. In order to be effective the disinfectant has to be used so concentrated that there is danger of injury to stock consuming the water.

1243—LUMP ON NOSTRIL—We would like to know what to do for a horse having a lump on his nostril about the size of a goose egg. It doesn't seem to hurt him; may affect the breathing some. Will lard and saltpeter take it off?—Utah Subscriber.

REPLY—As a rule, these enlargements contain fluid and the same should be opened by a competent veterinarian and its interior treated. Local applications will be of little serv-

1244—HEMORRHAGE FROM THE URETHRA—I have an imported stallion, nine years old, who has gone through a big season's work, having bred to 100 mares, never over two services a day, not closer than eight hours, mostly nine to ten hours apart. After the season had closed two weeks, I bred two more mares; when he dismounted I saw he was bleeding from the end of the penis. It seems thick and rather harder than usual and has a small sore at the ring around the penis; seems to serve as good as ever. He is being fed headed barley, part hay; he is not exercised much, but what he gets in the barn 16x16 feet. Please give me a remedy.—Kansas Subscriber.

REPLY—As the wound from which the hemorrhage occurs is so located that you can apply some agent to it you can no doubt control it with heat applications. Use the following, which should be well shaken before using: Sugar of lead and sulphate of zinc, of each six drams; add these to one pint of rain water and apply three times a day. Keep the horse in a well screened box stall away from flies during the day and allow access to paddock at night for exercise. You must guard against the contamination from flies if you get results in overcoming the local condition.

1245—ASKS FOR RECOGNIZED RECORD—Please give me the address of the French Draft Association that is recognized by the United States, and the secretary's name, so I may write to him.—Ohio Subscriber.

REPLY—C. E. Stubbs, Fairfield, Iowa, is secretary of the National French Draft Horse Association. No American live stock record association now enjoys the recognition of the United States government.

1246—SOWS FAIL TO COME IN HEAT—I have four pure bred Poland China sows whose pigs I weaned about eight weeks ago, and the sows do not come in heat. These sows were bred first when eight months old and averaged 270 pounds when ten months old. Could you advise me what to do with these sows to bring them in heat? Would letting the boar run with them help any?—Nebraska Subscriber.

REPLY—Be sure that the sows are fed sufficient grain to cause them to thrive and gain in weight. It will help matters to permit the boar to run with the herd after a more thrifty state is established.



ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.

Reduces Strained, Puffy Ankles, Lymphangitis, Poll Evil, Fistula, Boils, Swellings; Stops Lameness and allays pain. Heals Sores, Cuts, Bruises, Boot Chafes. It is an ANTISEPTIC AND GERMICIDE
[NON-POISONOUS]
Does not blister or remove the hair and horse can be worked. Pleasant to use. $2.00 a bottle, delivered. Describe your case for special instructions and **Book 5 K free.**
ABSORBINE, JR., antiseptic liniment for mankind reduces Strains, Painful, Knotted, Swollen Veins, Milk Leg, Gout. Concentrated—only a few drops required at an application. Price $1 per bottle at dealers or delivered.
W. F. YOUNG, P. D. F., 388 Temple St., Springfield, Mass.

WO WHIP BARGAINS

No. 10—Heavy, high-test rawhide center, from butt to tip; rubber lined; double waterproof covered, 6½ feet long. Prepaid for **$1.00.**
No. 11—Special Stock Yards Horseman's Whip, full length, 10½ feet; lash 5 feet; 12 nickel ferrules. Prepaid for **$1.00.**
Order by number.
BREEDERS' HARNESS & WHIP CO.,
Williamson Bldg. Kansas City, Mo.

FRAVEL'S DISTEMPER REMEDY



Guaranteed to Cure and Prevent Colts and Horses in same stable with sick ones from having Distemper, Influenza, Epizootic, Pink eye, Shipping Fever, Cataarhal Fever, Coughs, Colds and all Diseases of the Horse affecting the nose and throat.
A powerful germicide given internally alone will do the work, and that is found in **FRAVEL'S DISTEMPER CURE.**
Made and sold by **A. W. FRAVEL, Ph. G.V.S.** Centralia, Mo.

Warranted to Give Satisfaction.
Gombault's Caustic Balsam



Has Imitators But No Competitors.
A Safe, Speedy and Positive Cure for
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The Greatest Remedy Yet Discovered For All Sores on Jacks, Horses or Mules. Price $3.50 Per Can.

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"I have tried your Jacksorine and find it the only medicine for jack sores. I can recommend it to any one who has jacks with sores on them.—Sam Molen, Frazer, Ky."

"I have used your Jacksorine, and after having a jack with five different sores on him, and trying every remedy that I could hear of, and giving him up as incurable, I got a box of your Jacksorine and cured him inside of 60 days. I consider it has no equal.—A. M. Perkins, Washington, Ind."

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"Make my claim for Jacksorine as strong as you wish. I used it and found it O. K.—H. G. Belt, New Salem, Ohio."

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"I have used your Jacksorine to my entire satisfaction. I find it to be absolutely the best remedy for jack sores I ever used. Can heartily recommend it to anybody.—O. W. Layson, Hatton, Mo."

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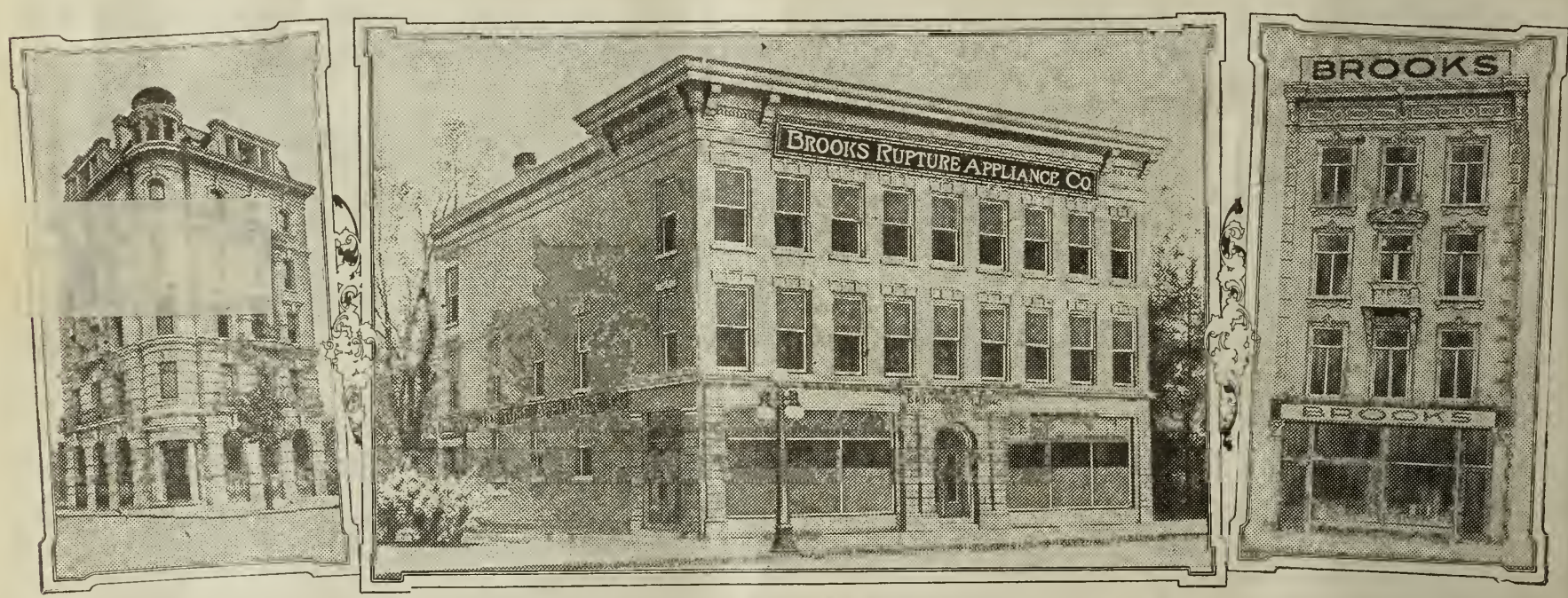
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There are no "salves," no "harness," no "paraffin"—no lies.

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It is sent on trial and you are the judge whether our claims are true or not.

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Most gratefully yours,
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